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ABSTRACT

Presentations of both the plenary sessions and the business meeting are included in the proceedings. Topics covered include: reassessment of the function of graduate education; dimensions of graduate study; faculty and student power and roles in decision-making; interdisciplinary, multidisciplinary, and polydisciplinary programs; and grading. (LBH)

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Proceedings of the Ninth Annual Meeting

COUNCIL OF GRADUATE SCHOOLS
IN THE UNITED STATES

Theme

PLANNING FOR AN UNCERTAIN FUTURE

U.S. DEPARTMENT OF HEALTH
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First Plenary Session: A Reassessment of the Function of Graduate Education

Thursday, December 4, 1:30 p.m.

PRESIDING: Alvin H. Proctor, *Chairman, Council of Graduate Schools*

Herbert Weisinger, *State University of New York at Stony Brook*
H. Hadley Hartshorn, *Texas Southern University*
Michael J. Brennan, *Brown University*
Lawson Crowe, *University of Colorado*

Alvin H. Proctor

THE ROOTE AND RISE OF THE SAME

When the Council of Graduate Schools met in San Francisco one year ago, Dean Joseph L. McCarthy, as Chairman, spoke on the topic "Planning Graduate Education." He discussed several major facets of graduate schools and issues and asserted that rapid evolution of our graduate schools appears to be called for. His address established the precedent that the Chairman should make a brief opening statement at the Annual Meeting—one in which he not only comments about those things that concern him most, but also in which he can to some extent point toward possible future developments.

One year later it is easier for me to appreciate both his motivation and perspective. The Chairmanship is an excellent vantage point, from which one gains a strong feeling of urgency that graduate issues and problems must be faced and solved. Moreover, because of the dedicated, hard work of many graduate deans who serve on the Executive Committee and other committees, one derives an acute sense of the potential in the Council of Graduate Schools. Through their achievements, and especially through the distinguished leadership of President Arlt, one becomes optimistically convinced that the graduate schools will conserve the best features of graduate education to this point in time and will move ahead in the 1970's—solving the old problems, developing new programs and policies, and grasping firmly unused opportunities to serve higher education.

The title for my remarks this afternoon is a phrase from the preface written by William Bradford in his history *Of Plymouth Plantation.* As he contemplated his task of recording how the settlement began and inferred, I think, how the colony should develop, he wrote that his purpose in writing would be guided by these standards: "And first of the occasion and indusments therunto; the which that I may truly unfould, I must begine at the very roote and rise of the same. The which I shall endeavor to manefest in a plaine stile, with singular regard unto the simple trueth in all things, at least as near as my slender judgments can attaine the same." [1]

The purpose of my comments is not to review "the roote and rise" of the Council of Graduate Schools, but to comment briefly on some of the things that have been done recently and to indicate what they may portend for unfinished business at hand, "at least as near as my slender judgments can attaine the same." First, a statement of perspective: David P. Gardner wrote in a recent article that "Universities in America are at a hinge of history; while connected with their past, they are swinging in another direction. Clark Kerr's apt commentary of six years ago, however sufficient then, no longer describes adequately the revolutionary manifestations of change in the structure and purpose of higher education. The American university faces today not merely a swing 'in another direction' but an unhinging from its past." [2]

President Arlt spoke in this vein to the annual CGS workshop for new graduate deans last July, saying: "Now as they [the universities and colleges] face the 21st century in an increasingly complex society, they must again radically alter their character. To him who will read the signs, the directions of these changes is becoming more distinct." [3] He had read some of the signs of the times in an address to the Midwest Conference on Graduate Study and Research, which met in Chicago in March; and Dean McCarthy, as noted earlier, has indicated the necessity for rapid evolution of the graduate schools.

The key words in Dean McCarthy's assertion are "rapid" and "evolution." This decade began with unprecedented expansion of university research and graduate education across the nation; the decade ends however with considerable confusion, pervasive doubt, and much uncertainty. Our magnificent educational achievements in the past are at least partially obscured by the impact of criticism on and off campus. The root and rise of both the Council of Graduate Schools and our current situation occurred in the same decade, but of course are not cause and effect!

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[1] William Bradford, *Of Plymouth Plantation, 1620–1647*, Samuel Eliot Morison, ed. (New York, 1953).

[2] David P. Gardner, "The Power Struggle to Convert the University," *Educational Record,* L, No. 2 (Spring, 1969), p. 113.

[3] Gustave O. Arlt, "The Future of Graduate Education," *Proceedings of the Second Summer Workshop for Graduate Deans, July 6–11, 1969, Lake Arrowhead, California* (Washington, D.C., Council of Graduate Schools, 1969), p. 140.

We are in the midst of accelerating change in higher education, and graduate education is the same in that respect as any other part. The whole elaborate web of education from elementary school through post-doctoral study is involved in accelerating change—complex, exciting, significant, and so deep in nature that these changes may well be a revolution, not merely reform. The basic questions for all of us, and the special responsibility of the president and Executive Committee, is to discern the main problems and trends, ask significant questions, and propose solutions.

I believe that important steps have been taken "to read the signs" and to energize evolutionary changes in graduate education through the Council of Graduate Schools. What is the evidence that this is so?

A primary point of evidence is philosophic. After a decade of solid achievement under the leadership of President Arlt, the Council has now developed the organizational structure and, more importantly, the *will* to deal with major problems and issues in the 1970's. I believe that this national organization of graduate schools is committed to the principle that we cannot permit issues and problems to go unattended; that common policies involving standards of high quality and logical, coherent graduate procedures must be evolved through cooperative effort and consensus; that policy vacuums, as far as this organization is concerned, will not be allowed to develop with the result that we have either random innovations by individual schools or have other national organizations moving into the realms of graduate matters to define policies.

The second point of evidence is both qualitative in effect and procedural. When the Executive Committee met in 1968 at San Francisco, it established a new committee of prime importance, the Committee on Policies, Plans, and Resolutions. In my judgment, this committee, after a year's development, has become second only to the Executive Committee in organizational and functional importance as the mechanism by which we will move ahead in the next decade to study and make substantive academic and procedural changes in graduate education. To characterize the CPPR in this fashion does not in the least denigrate the importance and necessity or the achievements of our traditional committees.

The Committee on Policies and Plans was conceived as one which would study and evaluate main issues and problems in graduate education; which would discern new developments and incipient trends before they became large and unmanageable; which would perceive significant policy vacuums that CGS should fill; which would inquire into the major concerns of graduate deans across the nation; and which would recommend to the Executive Committee what issues and problems should be thoroughly studied and how this could be done most effectively. If one may borrow a phrase from political history, the Committee on Policies and Plans would become the "brain trust" or quasi "kitchen cabinet" on graduate matters for the Executive Committee.

If, like William Bradford, I may also speak "in a plaine stile," this new committee, under the superb chairmanship of Dean Herbert Rhodes, has more than exceeded expectations. The Committee began its work early this year. Its chairman wrote to many deans in our diverse constituency and asked them to indicate not only their own problems and concerns but also those generic matters which should command the attention of the Council. The deans were almost too generous in their response, providing a data bank of opinion that will continue to be useful. Through its chairman, the committee made its first recommendations to the Executive Committee in July; and several of them were accepted and will be implemented in 1970.

For example, the committee recommended that we employ additional research staff for President Arlt's office—a judgment concurrently and independently considered by the president and members of the Executive Committee. It also recommended that beginning with the Annual Meeting in 1970 the Committee on Policies and Plans should be assigned one of the plenary sessions, which could serve as a CGS forum under its full responsibility; and this will be done.

The recommendation was also made and approved to establish a new advisory Committee on University-Federal Relations—vital relations which concern all of us and which are in a fluid and evolving condition. The duties of this new committee have scarcely yet been defined beyond the understanding that it will assist the president in his arduous work of representing the Council to governmental agencies and bodies; but let us hope that Dean John Perry Miller's admonition will be heeded: ". . . our emphasis has been too much upon the magnitude of our needs and too little upon the character of our needs. We cannot afford much more bounty upon the terms on which we have been receiving it."[4] The Committee on University-Federal Relations has been directed to call to our attention questions affecting graduate education that arise out of contemplated or completed legislative decisions or administrative actions of agencies of the federal government. Its advice to the president and Executive Committee should indeed be helpful.

Another new committee is the Committee on Post-Baccalaureate Programs. It has a broad directive, to study any substantive academic matter involved in graduate education—such questions as residency, degree requirements, admissions, curricula, and broad matters of good practice. There are many substantive academic matters that obviously need attention on every campus, and this committee must help define the scope of its research. As President Glass of AAAS recently wrote, ". . . educational obsolescence is forced upon us by the rapidity with which science and technology grow and bring about change in human society. . . . Our schools and universities seem to have made little change in organization, or even in curricula, to counteract educational obsolescence in our time." [5] It is time that we did so.

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[4] John Perry Miller, "Unfinished Business of the Graduate Dean," *Ventures,* IX, No. 1 (Spring, 1969), p. 6.

The Executive Committee also established a new Committee on Graduate Assistants, to study the role of the assistants and the responsibilities of the graduate schools to them. The importance of this assignment, considering the impact of thousands of graduate assistants upon both the graduate school and undergraduate students, is so obvious that further elaboration is unnecessary.

Dean McCarthy will report to the Council at the business session on Saturday morning concerning the efforts and problems of the Committee on Graduate Costs. The Committee on the Preparation of College Teachers will also present a resolution dealing with the emerging Doctor of Arts degree. Early next year this committee will circulate for your comments a draft statement of guidelines and standards for the preparation of college teachers. Such a policy statement is long overdue. The U. S. Office of Education has said that it wants it; and three weeks ago the American Association of State Colleges and Universities approved for publication its own detailed statement of guidelines for the Doctor of Arts degree "for college teachers." At that same meeting one of the major foundations indicated its current discussion of plans to finance pilot projects for the development of this degree, which is in fact already being developed in several leading graduate schools and in emerging doctorate granting institutions.

The Ph.D. degree is and should continue to be the highest research degree. However, as Dean Miller wrote, "Teaching in the liberal tradition requires talent of the highest order—comparable in quality to that required for the best research. . . ." [6] There must be no less attention to research, but certainly we must give more attention to the critical need for high quality undergraduate college teaching and the best preparation of such teachers. I hope that we can resist sterile arguments and in responding to the problem "listen to our head as well as our heart."

This morning the Executive Committee considered recommendations that committees be established or be reconstituted to deal with Financial Aid to Graduate Students, Graduate School Public Relations (non-federal), Graduate School Governance and Administrative Organization, Graduate Student Relations, and Graduate Instruction. As you know, Dean Michael Pelczar has become chairman of the Committee on Policies and Plans for 1970, and he and his colleagues will no doubt continue to add to its achievement.

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[5] H. Bentley Glass, "Letter from the President," AAAS *Bulletin*, (September, 1969), p. 2.

[6] John Perry Miller, "The Liberal Arts: A Time of Challenge and Opportunity," *Ventures*, VIII, No. 2 (Fall, 1968), p. 8. See also *ibid.*, IV, No. 2 (Fall, 1964), for a discussion of reasearch and teaching; and the statement in the report of the Select Committee on Education, *Education* at *Berkeley*, March, 1966, pp. 3–7, 39–41.

There may be those who believe, and with some justice, that all of us already suffer from committee fatigue and committee impotence, and for some this may be so. But ". . . graduate education today is exceedingly complex, no two institutions are exactly alike, and the scene is continually and rapidly changing in detail. . . ." [7] The task of research and study is too difficult and too important to be carried on by a handful of deans. We must broaden the base of support and communication with each other; we must tap the wisdom and expertise of deans from many institutions. Having done so, a difficult problem still remains: How do we translate committee research and published policies into viable policies and procedures within the member institutions?

The role of the Council will in broad outline continue as in the past. It is not an accrediting or legislative organization, and the autonomy and unique characteristics of the individual institutions must be preserved and defended. Nevertheless, the graduate schools must collectively speak more effectively to our individual members, to governmental agencies, and to other organizations, both in strength of voice and in point of time. I should like to make this suggestion: that somehow we devise methods by which proposed statements of standards and policies are referred to all CGS members for preliminary consideration. The consultative process must somehow be broadened on serious matters; the wisdom of the deans must be utilized on a broad base. The Committee on Policies and Plans took the first step when it widely consulted the deans in identifying the questions and problems with which we should and will deal. The next step has now tentatively been taken in the establishment of several new committees with broadly based membership. The third step will be to devise and implement procedures by which proposed policy statements have at least widespread consideration by the member deans before adoption and publication.

But I do not wish to be misunderstood. There is no simplistic organizational structure and procedure to effect our ends. An overabundance of "town-hall democracy" could sometimes cripple the Council's effectiveness. Our distinguished president and the Executive Committee and its standing committees have served the Council exceptionally well during the "roote and rise of the same." The record stands for all to see; and in the evolutionary changes that are bound to come in the 1970's, the Executive Committee and the president must (and most certainly will) continue to exert strong leadership. They will, as they have in the past, speak officially for the Council when the immediate situation requires such, even though broad consultation is not at the moment possible. This is always the task and responsibility of leadership. But I am sure that recent events in the Council exhibit a new trend toward wider participation and more direct involvement of many deans.

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[7] Report Prepared for the National Science Board, *Graduate Education, Parameters for Public Policy* (Washington, D.C., 1969), p. v.

May I conclude these remarks by quoting from a letter that the graduate dean of an emerging urban university wrote to Dean Rhodes: "I think that the graduate deans and their distinguished national bodies must guard themselves from an image of appearing so much above day-to-day realities that we run the risk of losing contact with the real world. In other words, I am disturbed by a gap, *or at least a lag,* [italics mine] between the major educational problems as identified by other national educational groups and our own base of operations. Could we not, in some systematic way, pull out the really relevant items of national concern for graduate education and then translate these into action in the CGS activities?" [8]

The Council of Graduate Schools must become even more distinctively and energetically the organization *which speaks authoritatively at the right time on graduate matters.* It can do so if it addresses itself with greater unity and aggressiveness to the problems of graduate education. Through the wisdom of its members it can offer viable solutions for many evolving problems, solutions that are acceptable to the bill-paying public and to students and faculty, viable for our governmental relations, and consistent with our graduate traditions of high academic quality and institutional autonomy.

Herbert Weisinger

PSYCHE'S SEEDS

As some of you may know, I am but a sophomore graduate dean and, like most sophomores, still somewhat surprised that I survived my freshman year. And to those who knew Stony Brook last year, it was hardly the year for calm and leisurely initiation into the art and mystery of administration. Remembering my own graduate school days, I had always thought that the occupation of a graduate dean, chosen more for his academic demeanor than for any other qualifications, was to give learned and dignified speeches on behalf of God, home, mother, and higher education. TV, the pill, Berkeley, and a total lack of invitations to talk soon combined to dispel that quaint illusion, while sit-ins, police busts, midnight calls, emergency meetings, and the like made it unmistakably clear to me that the graduate school no longer floated in an isolated scholarly empyrean far above the mundane and tumultuous world of undergraduate life, but was now permanently a part of it, as much affected by what disturbed undergraduates and no less responsive.

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[8] Wesley J. Dale to Herbert D. Rhodes, April 7, 1969.

But again like most sophomores, the very fact of survival has given me the courage to look about, to take stock of the situation, and even to hope, albeit faintly, that I can make it for another year. I am afraid that the view is not encouraging; I see far more problems than I see solutions. The other day, in a few moments between meetings—and the subject of meetings in academic life is worth a book in itself, but a book written by Nathanael West—I was able to jot down a list of thirty problems facing the Graduate School at Stony Brook. I know that a new institution must of necessity be beset by many more perplexities than a school that is long established and smoothly functioning, but of the thirty problems I listed, I know from what I read that most are as much applicable to established as to new institutions; substantially, most graduate schools, old or new, large or small, religious or secular, private or public, and regardless of region, share the same burdens.

I will not bore you with my list, but I would like, first, to mention a few of those that seem to me most representative; second, to suggest some tentative approaches to them, which, I fear, may be as controversial as the problems themselves; and finally, to show that these problems, diverse as they may be, are but parts of a larger, single historical movement.

I would summarize the situation that faces higher education by this one question, What will be the impact of all the changes that are taking place in undergraduate education on graduate education? You must surely realize that once the new generation of undergraduates, and not only those who are directly radicalized but those many more who have experienced disillusion with undergraduate education and who face the world outside the university with distrust and even cynicism, once this generation begins to knock on the doors of the graduate schools—and admitted they will be because there is no doubt of their intellectual capacity—they will not be content to accept without question the ways and modes of graduate education that have become traditional with us. And they will be actively and properly encouraged in their questioning by the younger members of the faculty, whose identification is far more with students than with institutions. This is a factor that is quite new and one whose effects are far from being either recognized or realized.

Let me select out of my list those problems I see as of greatest concern. What will happen to the powerful professional orientation of the graduate schools? How can this bent be modified and liberalized without loss of professional competence? How do we develop interdisciplinary programs, for which there is such great demand on the undergraduate level, on the graduate level? How will the tightening of the job market affect enrollment and placement? How can we support graduate students in the face of declining support both from Washington and from the states and in view of the ever-rising cost of living and in communities that are increasingly antagonistic to having universities in their midst? How can we deal with the effects of a discriminatory and arbitrary draft law and its maddening procedures? What is the educational and professional significance of the shift in interest in disciplines, that is, away from the physical sciences and in the direction of the humanities and social sciences? If the Berkeley model of faculty, facilities, and student ratios to serve multi-purpose professional ends is no longer viable, what do we put in its place? To what extent should graduate students participate in the making of decisions that affect them? How well are we preparing teaching assistants to teach undergraduates and for the teaching profession in general? How well are we meeting the teaching needs of the two and four year colleges and our own undergraduate schools? To what extent should research be limited in the name of higher social goals? How involved should the graduate school become in the community and in the solution to social problems?

I think I have raised enough problems to last a lifetime; only nowadays lifetimes are condensed into months, and often we must make decisions of the gravest importance in the worst of circumstances. Let me, in the interests of your time and sanity and my own inability, deal with but the last three of the questions I have just raised.

The spectacular growth of the two- and four-year colleges has created the need for teachers who combine professional competence with teaching interests but who neither desire nor are required to pursue research as a condition of their employment. These schools require teachers in ever-increasing numbers whose preparation is considerably beyond the M.A. level but who, at the same time, are not prepared for the rigors of professional specialization.

The need for such teachers affects the universities as much, though less noticeably. For one thing, more and more students will be going on to the universities from the community colleges for their junior and senior years and then possibly to graduate school; the preparation of these students must therefore be of direct concern to the universities. Moreover, extensive and fundamental changes in undergraduate curricula within the universities will have an impact on graduate school curricula. On the one hand, undergraduates of the universities will demand persons whose primary interest is in undergraduate teaching; on the other hand, undergraduates who are the products of such teaching will on going on to graduate school, certainly have their effect on the training techniques by which graduate education has so far proceeded.

I have come more and more to the conclusion that the teaching profession on the college level is composed increasingly of teachers primarily concerned with teaching who have the training and the desire to keep up with the scholarship in their fields to transmit it to their students but who do not themselves want to be research scholars. Yet, given the circumstances that obtain today, such people can earn no more than the M.A. or M.S. degree, with all the stigmata of second-class citizenship attached to those degrees or to any of the other degrees that have been recently manufactured to designate more than the master's but less than the doctor's degree. The result is that neither teaching nor scholarship is served; such teachers acquire the pall of defeat.

The point comes down to this simple fact: the only degree that counts is the Ph.D. No other degree serves the purpose of conferring status as a full-fledged professional teacher. It is therefore my contention that we must award the Ph.D. degree itself to the kinds of teachers I have been talking about for the sake of higher education as a whole—for the teachers, for the students, and for us, who will ultimately have these students in our charge both on the undergraduate and graduate levels. I propose that we grant the Ph.D. to those graduate students who have finished the course work required by their respective departments, who successfully pass the necessary preliminary examinations, and who, instead of writing the dissertation, have taught for two years in a community or four-year college. Upon the completion of two years of successful teaching, as attested by the department in which the teaching has been done, the Ph.D. will be awarded.

For those students who wish to teach on the graduate level or who wish to demonstrate professional competence in research, the thesis will be required. Upon successful completion of all the requirements, the Ph.D. in —— will be awarded.

I am aware that the charge will be made that the Ph.D. will be diluted as a consequence of this proposal. But the degree is already diluted; many graduate students have neither the inclination nor the ability to do sustained, original research, and their presence in the graduate schools has effectively watered down the Ph.D., no matter how much we pretend that we are still maintaining the high standards of the past. Moreover, I believe the Ph.D. with emphasis on teaching is an honorable and useful degree, designed to serve an honorable and useful purpose. I think we shall be better off by facing up to the realization that we have in the graduate schools a two-track system already. The spread of the post-doctoral in the sciences is one proof, the substitution of a group of essays for a long thesis in the humanities is another, the dropping of required courses is a third, and there are others. That the need is here, there is no doubt; what alone stands in the way of meeting it is the name of the degree.

I turn next to the question of the direction of research, of war-related research in particular. How one draws the line between the pursuit of knowledge for its own sake and the use to which that knowledge may be put, how one determines whether or not a particular piece of research is war-related in a society as technologically interrelated and interdependent as ours are the crucial social and moral questions of our time. The engine that propels the car that drives me to work may be used to power a truck that brings troops to a front; the principles that enable a plane to fly me to a Miami vacation enable that same plane to carry bombs; the weedkiller that protects the flowers in my garden may be used as a defoliant; the anticoagulant that I took after my coronary can exterminate animal life. With specific weapons of destruction, there is no problem; research of and development of them have no place in a university. What places us in our dilemma is exemplified by the discovery of a principle of purely theoretical interest that only later on is found useful in a technical application to war-related research in a manner altogether unanticipated by the original investigator. Paul Goodman has posed the problem in his characteristically crusty way: "We try to purge the university of military projects, but students attack the physical research itself that could be abused (and is even bound to be abused), as if science were not necessarily a risky adventure. They don't see that this is a tragic dilemma. They seem quite willing—though battening on them in the United States—to write off Western science and civil law." Milton put it better earlier: "Good and evill we know in the field of this World grow up together almost inseparably: and the knowledge of good is so involv'd and interwoven with the knowledge of evill, and in so many cunning resemblances hardly to be discern'd, that those confused seeds which were imposed on *Psyche* as an incessant labour to cull out, and sort asunder, were not more intermixt. It was from out of the rinde of one apple tasted, that the knowledge of good and evill as two twins cleaving together leapt forth into the World. And perhaps this that doom which *Adam* fell into of knowing good and evill, that is to say of knowing good by evill."

As teachers and students, we must of necessity be deeply troubled by the social consequences of what men think and do. Seen from this perspective, the problem that confronts us as individuals in society lies not so much in things themselves as in the uses to which men put things, so that the right use of things becomes a responsibility that all of us must bear, immediately as academics but as well in our larger and more important obligations as citizens. The scalpel in the surgeon's hand cuts two ways: it may save a life or it may destroy it, as it did in Belsen and Buchenwald. It is not the scalpel but the hand that holds it that does good or evil, and we are as much accountable for the direction of that hand as the surgeon himself, if indeed ultimately not more so.

I would propose that we take as our criterion of judgment this question: Does what is under consideration imperil the university as a center of humane learning? As faculty and students, we constitute a *collegium,* a communality that we ourselves must protect and foster lest others, without our training, our dedication, and our principles, wrest it from us. And this means abandonment of the *laissez-faire* attitude as a result of which the researcher has become an entrepreneur whose business address happens to be the university that currently employs him. But the university whose facilities are being used and whose reputation is at stake has the right to protect its name. Academic freedom cannot be used as a cloak to conceal activities that are inimical to humane values, which are in the end the only valid justification of the university's existence.

In the light of what I have been saying, the third question answers itself: the university is involved, and historically has always been involved, in social questions. The problem, therefore, is not should it be involved but in what ways and for what purposes? For in the most fundamental sense the university is and always has been a creature of the dominant forces of society, and as those forces themselves have progressively widened and deepened socially and their needs therefore continuously expanded, so the purposes which the university has been made to serve have been correspondingly widened and expanded. The university turned out theologians when theologians were needed in the Middle Ages; it provided preachers and teachers when preachers and teachers were needed in eighteenth-century America; it supplied administrators of empire when administrators of empire were needed by nineteenth-century Britain; and it poured forth professionals and technicians when professionals and technicians were needed for the industrial growth of, first, Germany, then the United States, and now the Soviet Union and Japan. In sum, the university is a social institution supported by society for its own productive purposes.

I have come, in my own way, to the critique of the university and especially of the graduate schools made by the new left. That the university has been unduly responsive to the needs of the military-industrial complex there is no doubt. But, at the same time, it has been the technology of modern industrial society, of which the complex is but a part, that has for the first time in human history made it possible to abolish once and forever all previous forms of society that each and every one of them have had as the necessary condition of their existence—an economy of scarcity, and therefore inevitably a society of man against man. For it is now theoretically possible for each and every individual in this country, and eventually for all others, to have enough to eat, to live in decent housing, to receive proper medical attention, to obtain useful schooling, to have the means of leisure, to lead a productive life.

The technology is there; it is the means by which the fruits of that technology unequally reach or are prevented from reaching men that is at fault. It is all very well for a young man of the middle class who by the time he has reached his teens, has driven his own car, bought his own clothes, has his own radio and his own hi-fi, and has had the means to gratify virtually all his desires to say that he is now disillusioned with all his gadgets and that therefore no one else has the need to enjoy them. But there are millions in this country and countless millions more in the rest of the world to whom food, clothing, health, education, and work constitute an ideal still to be attained.

To show how that ideal can be made reality without our having to continue to pay the price—a price summed up in the Marxian concept of alienation—that technology has so far extracted is the fundamental social problem above all others that university and the graduate school must solve. For I do not believe that national commitment is the result of blind chance or the vagaries of history. To put a man on the moon was a deliberate decision; to put heaven on earth should be a decision no less deliberate. For those who think best in political terms, I will put the problem in this way: How can the promises inherent in our society be realized by all the members of that society equally? What must be done to our institutions, which were first created to serve the needs of a small, essentially rural population, to make them effective instruments of service for masses of men in the confinement of cities? And for those who think best in moral terms, I will rephrase the problem now in this way: How do millions of men learn to relate to each other and to enjoy the benefits of the machine without becoming slaves to it? How can millions be brought to respect each other as individuals?

Whether the problem is stated in economic, political, or moral terms, it remains the same: to make real and living the promise of what we now know can be without paying the price that has been paid before. It is to the solution of this problem, stated in any way we like, that the university and the graduate school must now address themselves and thus truly to serve society. It is a task that demands that all the disciplines that constitute the university, hitherto compartmentalized intellectually and departmentalized organizationally, come together; and it is not mere coincidence that more and more we are being moved along interdisciplinary and multidisciplinary lines. The pressures that affect society as a whole are no less felt in the university, detached though we like to think of ourselves. Society—even the segments of it most in need—is willing to tolerate that detachment as a sign of our objectivity, but it wants results as well. If we do not provide the solutions, unscrupulous men will; and we will have no excuse.

I would not be misunderstood on this point. I am as aware as anyone on the left or anywhere else that technology is as capable of destroying as it is capable of creating and that at this time and in this country it is destroying more than it is creating. I need not recite the tragic litany of the ills of contemporary industrial society—the poverty, the ill health, the lack of housing, the pollution of the environment, the breakdown of transportation, the mismanagement of food distribution, domestic and colonial exploitation, the relentless thrust toward war and more wars, the anomie of the affluent, the despair of the poor. Not a day goes by in which yet another fearful facet of imperialism at home and abroad is not brought before our horrified eyes. Yet I do not see how the needs of most men, at home and overseas, and especially in the third world with its ever rising-expectations, can be met except through the techniques of modern technology. How else can the masses of men obtain decent (for to speak of minimal is to be insulting) food, housing, clothing, medical care, transportation, education—all the necessities of millions of men now so interrelated in so many countless ways and therefore so dependent on each other? Surely not by a return to cottage craft, and I have noted that some of the most vociferous opponents of technology arrive in the latest Detroit-made autos at their protest meetings, where they shout through battery-powered speakers, sing and play into a maze of advanced electronic apparatus, and memorialize the occasion by use of the most sophisticated cameras.

We who have first enjoyed and only after rejected the fruits of technology cannot say to those who have never tasted them that for their own good they must not reach out for them. Such an attitude smacks of the dictatorship of a self-satisfied and self-righteous minority; worse, it is in effect the abdication of social responsibility. The greater the ravages of technology, the larger the numbers of men whose expectations must be met, the more the needs that have to be satisfied, the more imperative the challenge to the universities and to the graduate schools to resolve the dilemmas that confront society, the greater, in fact, our fortune. "The supreme question before mankind," Walter Lippman wrote on his eightieth birthday, "is how men will be able to make themselves willing and able to save themselves." "I shall not live to know the answer," he noted parenthetically, and most probably neither will I nor others in this room, but to provide the answer must be the commitment and the opportunity of higher education, and in its success lies our only chance for whatever tiny part of immortality we are likely to get.

Unlike the graduate deans of my graduate school days, I have deliberately refrained from invoking the shibboleths traditional on such occasions—academic freedom, scientific objectivity, freedom of inquiry, the right of dissent, the neutrality of the academy, and the like. This is not because I do not believe in them—I do, deeply, and in these uncertain times I had better—but because they are usually intoned as though they were divine decrees handed down at the Creation itself by a Jovian Board of Trustees for all time to come. The fact is, the concept of academic freedom is of rather recent historical origin, having more to do with the need of the newly emerging professions to protect themselves from political interference than with principle *per se*. But I prefer to think of academic freedom as society's half of the bargain that it struck with me when it accepted me as a teacher. But in return for the freedom of thought and expression that I enjoy, at least so far, I have my part of the bargain to fulfill—to deal with the problems that beset society and to provide without fear or self-interest the solutions it needs for its survival. Thus, while the university is a part of society and owes its existence and support to it, it can best discharge its responsibilities to society by being free to do what it can do best, to do what no other social institution can do, that is, to subject ideas and the actions derived from them to the sharpest critical, scholarly, and dispassionate scrutiny of which it is capable without concern for mundane consequences on the one hand and with commitment for enlarging the humanity of man on the other.

I am well aware that the path that I am urging the university and the graduate school to follow is fraught with danger; the experience of social commitment that universities of other times and in other places have had are not calculated to make one sanguine about the wisdom of this course. We are neither incorruptible nor infallible. We are but men and sometimes pretentious men at that; but if we have any claim on society's support and tolerance, it is in our profession, taken in both senses of the word, what we believe and what we do. We may very well do badly and believe wrongly; but in this time and in this place, what we cannot do is abdicate the responsibility of profession.

Never before has history moved at so rapid a pace, and each succeeding period lives a shorter span than its predecessor. I have been talking in the perspective afforded me by the assumption that we are living at the end of a period, that is, at the close of the Renaissance, and the beginning of a new era, which has yet no name. The components of both the old and the new are still intermingled and what one may take as the throes of death may very well be the struggles of birth. If I may use a homely image, I would suggest that we think of historical periods as made up of the outstretched fingers of one's hands inserted between each other and then abruptly pulled apart. Taking the fingers of the left hand as representing the Renaissance and the fingers of the right hand as representing the era striving to be born, I visualize the time of history in which we now live as the moment when the fingers of the left hand are drawing away from those of the right hand with the swiftest speed.

For if we think of the Renaissance as the revolutionary force that succeeded in destroying a static, hierarchical, and reactionary mode of thought and behavior and replaced it with one that broke open the way to the comparatively unhindered exercise of individual *virtu* in private and public life alike, then I think we must be prepared to admit that the world is now in the process of ending, if it has not already done so. By *virtu,* I mean the freedom, if not always the possibility, of the person to move in many directions, economic, social, political, emotional, intellectual, and moral, that is, towards capitalism, a bourgeois form of society, representative government, science, freedom of conscience and belief, faith in the rational, the supremacy of the authentic and self-justifying self, and devotion to the word as the highest form of expression.

I need not belabor the evidence for this conclusion for it has been abundantly set forth by, among others, Leonard B. Meyer in "The End of the Renaissance" in *The Hudson Review;* by Wylie Sypher in *Loss of the Self in Modern Literature and Art;* and most eloquently by Erich Kahler in *The Disintegration of Form in the Arts.* One sentence from Jean Dubuffet's lecture "Anticultural Positions," given at the Arts Club of Chicago and reprinted in the appendix to Professor Sypher's book, sums it all up: "I have the impression that a complete liquidation of all the ways of thinking, whose sum constituted what has been called humanism and has been fundamental for our culture since the Renaissance, is now taking place or, at least, is going to take place soon." We who are the daily witnesses to the power of the collectivity over the individual, of feeling over expression, of touching over speaking, of action over persuasion, of process over structure, of things over thinking, must acknowledge that at the very least the end of the Renaissance is now plain in sight. Incidentally, this is not to be taken as an attack on the golden lads and girls of our time who would deny chimney sweepers; they are, rather, the logically illogical extension of the style of our time and its worst victims.

Let me revert to the image of the interlocked fingers. The fingers of the Renaissance having pulled apart from those of the Middle Ages, the fingers of the Renaissance are now virtually free from the modern; but what the hand into which the fingers of the modern are pushing themselves is I do not know. I do not, however, see this is a cause of despair; it is, in fact, the business of our future.

H. Hadley Hartshorn

THE RELEVANCY OF GRADUATE EDUCATION

In a letter to me dated February 24, 1969, Dean Herbert D. Rhodes, of the University of Arizona, posed the following questions: (1) What are the most important issues in graduate education today? (2) What problems do you think deserve Council attention? and (3) On what matters should the Council develop policy statements? In response, I suggested that the following topics should receive highest priority in planning graduate programs: (1) The role of the graduate school in the education of the disadvantaged post-baccalaureate student and in the solution of domestic problems. (2) The relevancy of graduate curricula and graduate education in general. (3) The growing disaffection of young graduate students. (4) Financial support of graduate education. (5) The relationship of the graduate school to the military-industrial complex.

Elaborating on the first topic, I asserted that there is general agreement that graduate schools have neither provided avenues of education for the academically disenfranchised student nor applied significant portions of their resources toward the solution of problems of race, poverty, ghetto schools, and urban decay. Some would say that graduate education should not be expected to provide answers to such complex socio-economic problems, but I contend that our graduate programs must provide for those students who are victims of these circumstances if the integrity and viability of the nation are to be maintained.

There are those who suggest that the needs of the academically deprived students of higher education should be met by undergraduate institutions. It should be pointed out, however, that along with their primary role of providing a broad liberal arts education, undergraduate institutions find it necessary to utilize increasingly greater portions of their time, facilities, and personnel in the alleviation of residual deficiencies resulting from the inadequate preparation of students during their tenure in high school. Meeting these needs virtually precludes the development and implementation of programs at the undergraduate level that would bring the deprived or disadvantaged student into the intellectual and technological mainstream of our society. Programming for this need, therefore, must be carried on by the graduate school if, indeed, it is to be performed at any educational level.

The question may also be raised whether graduate schools should become involved in applied education. It should, if one interprets applied graduate education to mean the establishment of specific machinery, not excluding special academic departments, to study and to propose solutions for socio-economic problems of ethnic groups. The traditional approach to the solution of these problems has proved less than effective. Politicians, churchmen, and community groups have in common their more or less complete failure in providing any meaningful relief from the misery suffered by members of America's sub-cultures.

The graduate schools of the nation have the expertise, the freedom, the organization, and the resources necessary for solving these problems; and yet they remain largely uncommitted on this issue.

Failure to assume these new responsibilities, as I see it, merely postpones the involvement that will be dictated by events as well as by graduate students in the near future. It is my firm conviction that the Council of Graduate Schools in the United States should give serious consideration to the problems involved in the implementation of the various facets of applied graduate education while these measures may be evolved through thoughtful planning and deliberation.

To illustrate just what applied graduate education can mean in the life of a ghetto student, I should like to cite a case in point. In recent years a bright young man came to Texas Southern as the ranking graduate of a very inadequate high school. He elected to major in biology in our College of Arts and Sciences, where he attracted the attention of his instructors through his industry and diligent application of himself to his studies. Being aware of his background deficiencies as well as his potential, the biology staff took a special interest in him and assisted him in compensating for much of the background training that he had missed in high school. As a result, he was graduated from Texas Southern with honors.

In spite of his outstanding performance as an undergraduate, however, he was still not adequately prepared to enter medical school as he had hoped, for he failed to make the cut-off point on examinations administered to determine his eligibility for admission. But we were not willing to let the matter die there; we were convinced that here was a young man who could achieve academically if he were given special assistance at the graduate level. We, therefore, made financial arrangements for him to attend a small southern graduate school, where again he did outstanding work and obtained a master's degree in biology. His record was then brought to the attention of a relatively large eastern graduate school, where he was accepted into the doctoral program. He went on to earn the Ph.D. in biology there, and today he is teaching zoology to medical students in one of California's major universities.

This is one of a number of cases that could be cited to illustrate the role of the graduate school in salvaging human resources. When a graduate school refuses to relax archaic admission standards under circumstances that warrant such a measure, when it refuses to change outdated curricula and requirements for graduates that have no relevancy in modern society, it is denying many educationally deprived young people the opportunity to reach their maximum development; it is denying them the opportunity to move into the mainstream of American life. It is relegating them to the role of dependency upon society rather than that of a contributor to society.

Dr. Bevington Reed, Commissioner of Higher Education for the State of Texas, enunciated very clearly the need for relevance in educational programs today when he said, "the campuses of our institutions of higher education have increasingly become the arenas where confrontations relating to the pressing issues of our time take place. Everywhere there is concern for increased opportunity for higher education, particularly for minority group young people and for those who come from economically and educationally disadvantaged backgrounds."

He continues, "In a sense, it is as though all the dramatic and urgent issues of our time have come into focus on our college campuses. This presents both a great challenge and a great opportunity for higher education."

The questions that graduate schools today are contemplating defy simple solutions. They are indeed complex matters. Nevertheless, if graduate education is to be meaningful, it must be relevant. It must address itself to the needs of the academically disenfranchised student, to the needs of the inner city, to the needs of our socio-economic system, indeed, to the needs of America.

Michael J. Brennan

A CANNIBALISTIC VIEW OF GRADUATE EDUCATION

I take my sermon today from forty-eight letters containing one hundred and thirty-two suggestions for reappraisal of graduate education. These are responses by graduate deans to the CGS Committee on Policies and Plans. By oversimplifying somewhat, I find the concerns expressed in these letters fall into four categories: teacher preparation, relevance of doctoral education, disadvantaged students, and what might be called the university and society. The financing of graduate education and research could be allowed as a fifth category. However, I prefer to treat the question of money as it did in fact appear in the letters of the deans—not as a separate matter, but as a theme running through all discussions of academic issues. Because other panelists will address themselves to the important goal of expanded educational opportunities, I have chosen to speak on three topics: teacher preparation, relevance of doctoral education, and university-society relationships.

I

Although uniquely American strains have evolved in our graduate schools, after more than a century they remain essentially German universities superimposed upon English colleges. Today, however, this model of nineteenth-century German scholarship and research appears to have outlived its usefulness as a uniform standard for all advanced study in the sense that the graduate schools fail to meet important educational needs of American society. Advances in educational attainment (a rising percentage of the college-age population attending college, the explosion in the number of junior colleges and community colleges) and forecasts of further expansion (fourteen years of school rather than twelve years as the educational norm) demand an increase in the number of junior college and college professors. But more important than a crisis in numbers is a crisis in quality. If undergraduate education is not to degenerate—some would say degenerate further—into glorified secondary school instruction, then the task of producing qualified college teachers must be shouldered by the graduate schools.

Many, if not most, Ph.D. programs, after a respectful but sidelong bow to the value of good teaching, proceed to deify a rather strange notion of research training. Time does not permit me to comment at length on the avalanche of journal articles of questionable worth that we witnessed during the 1950's and 1960's. Neither shall I comment on the bandwagon effect under which institutions crave new Ph.D. programs founded on meager resources in order to attract and keep a so-called research-oriented faculty. Instead, a few facts will suffice.

One study has shown that 85 percent of Ph.D. recipients never publish.[1] Another survey revealed that 70 percent of Ph.D. recipients never publish; 20 percent publish occasionally; 10 percent publish regularly; and 1 percent make what their peers judge to be distinguished contributions to the literature of the field.[2] That is, 10 percent never publish, and the remaining 30 percent includes many who have contributed to the consumption of paper and ink in the form of marginal journal articles.

Secondly, the attrition rate in Ph.D. programs nationwide is in the neighborhood of 50 percent. At best we have only scanty evidence of why this is so. At one institution, 80 percent of those who dropped out of Ph.D. programs in the humanities and social sciences did so for nonacademic reasons, that is, for reasons other than failure to meet performance standards. A comparable figure for the sciences is 35 percent.[3] No doubt these nonacademic drop-outs include people with weak motivation and husband hunters. But we do not really know how many give up in sheer frustration. I have talked with more than a few students, very capable students appearing to possess talent for effective teaching, each of whom confessed that he would grit his teeth and do that damn dissertation so he could get the union card for an appointment at a college that confuses professional baptism with the Ph.D. degree.

We offer only one track to all comers, regardless of their diversity in interest, talents, or motivations. Prospective teachers, scholars, government employees, industrial managers, writers, research workers, broad and narrow, must all follow the same route. In defense of this practice, it has been argued that the research experience of the Ph.D. program is a valuable asset to the college teacher even though he may never do research. Yet I have never seen any evidence to support the claim, and I suspect it is a myth.

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[1] Ann M. Heiss, *The Preparation of College and University Teachers* (Berkeley: Center for Research and Development in Higher Education, 1968).

[2] P. Woodring, "The Profession of College Teaching," *The Journal of Higher Education* (May, 1960) pp. 280–282

[3] W. D. Cook, "Attrition Patterns of Graduate Students at Cornell," May, 1969, mimeograph.

Some, particularly junior college faculty members with M.A. degrees, have sought the solution in "making the M.A. respectable again." In my opinion this solution is folly. There is no hope for rehabilitation of the M.A. other than as an honors degree awarded simultaneously with the B.A. to undergraduates who complete an accelerated course of study, including graduate courses and a thesis, over roughly a four-year period.

Others have sought the solution in a new intermediate degree. With rare exceptions, these are halfway measures—truncated Ph.D. programs with research-oriented courses and seminars and research-oriented general examinations aimed toward culmination in the dissertation, which then is not written.

A new teaching degree should be specifically designed for the education of prospective junior college teachers and four-year college teachers. A mere paint job on existing master's or doctoral degrees simply will not do. Moreover, a new degree should be a doctorate in order to lend respectability and to cope with the hang-ups of accrediting agencies and college administrators who do the hiring.

Naturally, I have my own hobbyhorse, which I would now like to ride in public. The curriculum should be interdisciplinary. While each student centers upon a conventional departmental discipline, his program should include courses in related disciplines. This prescription is based on the assumption that classroom exposition of subject matter at the undergraduate level is now overly fragmented and that "relevant" teaching must lean more heavily on related disciplines. Interdisciplinary studies are especially important in the humanities and social studies, but teaching in the sciences might include the history and philosophy of science and the role of creativity in science, if contemporary method and content are to be brought alive.

Courses carefully chosen from the history of higher education in America, learning theory, teaching methods, and the sociology of education would also contribute to a student's development. For those who see the disgraceful spectre of the Teacher's College rising from its grave, let me assure you that such courses do not necessarily constitute the old "teach the student, not the subjects" line perpetrated by the unintelligent abusers of John Dewey. To put this suggestion in perspective, ask yourself how much the professors in your institution know about the history and sociology of academia.

A one-year supervised teaching internship, served in a junior college or appropriate four-year college, should be an integral part of the degree program. Cooperation between graduate schools and colleges would, of course, be imperative. Finally, an expository, in contrast to a research, dissertation might be required. In a dissertation of relatively modest length, the student would be expected to display in writing a clear and well-organized presentation of a problem, theme, or idea—drawing not only upon his major discipline but also upon his knowledge of other relevant disciplines.

I envisage a three- to three-and-a-half-year doctoral program, consisting of approximately two years of course work followed by a year devoted to the teaching internship and the dissertation.

One might object that a teaching doctorate would further debase the Ph.D. On the contrary, I expect a teaching doctorate would protect and strengthen the Ph.D. as a bona fide research degree. By restricting the Ph.D. to prospective research experts and university teacher-scholars, the present trend toward more relaxed standards and multi-purpose functions would be constrained. Not only would a teaching doctorate suit the milieu of the established graduate schools, it would also match more closely the resources of developing institutions. Of course, with Ph.D.'s populating the larger and more prestigious universities, an elitist distinction might well emerge between the Ph.D. on the one hand and the teaching doctorate on the other. If the Ph.D. were to become known as the superior doctorate, I can only argue that such a situation, though regrettable, is preferable to what we now face.

Another objection cannot be ignored. Some scientists and social scientists will argue that if a teaching doctorate is legitimate, why not new research doctorates for those who will work in industrial labs or government agencies? The Doctor of ——— has already been proposed. I believe one can defend a teaching doctorate without embracing a variety of sub-Ph.D. research doctorates. In a common teaching degree we are concerned with the process by which the academic establishment replenishes itself and most effectively sustains one of its unanimously accepted purposes, the dissemination of learning. In a variety of departmental research doctorates we are concerned with the mechanism by which graduate schools can satisfy job specifications defined by diverse employers with widely varying wants. Admittedly, we now attempt this to some extent by training people differently and attaching to them the common Ph.D. label. Yet, there is a serious question as to whether the graduate school should be looking inward, critically and constructively, at its own essentials or, as it has done in the recent past, looking outward for student-placement and research objectives dictated by other institutions. I shall have more to say about this a bit later.

II

Assuming a teaching doctorate could find acceptance, the problems of the Ph.D. programs would not miraculously disappear. Rehabilitation of the teaching assistantship remains as a middle-aged problem. Clear separation of the teaching function and student recruitment, improved instruction of undergraduates by assistants, and enrichment of the teaching apprentice experience are needed most in the sciences. In the absence of adequate screening, faculty supervision, and prestige, it is no wonder that the T. A. has slipped into the unfortunate state of second-class citizenship in the academic community and it is no wonder that more and more graduate deans lose sleep over impending negotiations with the union to determine working conditions by means of collective bargaining.

Of more recent origin are complaints about the research assistantship. One now hears that the R. A. is a corridor of ever-narrowing specialization in graduate study. Example: Henry Hopeful enters graduate school as a T. A.; advances to an R. A. in his second year, while he takes only those courses necessary to pass prelims in certain fields; advances further in the narrowing experience of a research assistant without time to take courses that might expand rather than intensify his knowledge because he must meet his commitments to his research adviser; and finally emerges on the job market as a specialist in his dissertation. Henry Hopeful alleges that industry finds him too narrow for the range of problems on which he would be expected to do research, and colleges find him ill-prepared to teach general undergraduate courses. If one is to take the complaint seriously, then the boast of minimal formal course work in science is but a cloak for the practice of awarding the Ph.D. degree in a sub-specialization of the department. Why did Dr. Hopeful not speak out earlier or take it upon himself to enlarge his knowledge? Because, he says, he was under the financial thumb as well as the intellectual influence of his research adviser. At issue here is something more far reaching: the conception of graduate education as program versus graduate education as a master-apprentice relationship, "the" graduate student versus "my" graduate student, or if you will, the faculty member as counselor and guide versus the faculty member as entrepreneur.

Now, what negative things can I find to say about the humanities and social studies? Lately, we have all become conscious of the excessive time consumed in the completion of doctoral requirements. Financial support adequate to permit qualified students to remain on campus for four or five years of full-time work is a necessary but not a sufficient condition for degree completion within a reasonable time. Curricular changes are needed as well. I assume the purposes of doctoral education include development of the individual to fulfill his own potential for creativity to the greatest extent possible, *stimulation* of learning and communication, self-direction and appreciation for quality of work, and attainment of a level of professional competence upon which a student can build in his postdoctoral years. The prevailing sequence of step-wise obstacles to be overcome acts instead as a hindrance to the scholarly development of many bright students.

Lectures and seminars are important to new graduate students as a means of providing a solid self-disciplinary base. But since no amount of formal course instruction will provide more than a small fraction of the basic knowledge a scholar will need to draw upon in his lifetime of activity, we should abandon the pretense that a sizable array of courses will provide "distribution" and a "balanced background"—or somehow assure high-quality research. More important is free inquiry. Students should be turned loose or, more exactly, turned toward the library. Certainly, consultation with the faculty is necessary; but fundamentally the student is responsible for his own progress and is accountable for the outcome, reflected in some form of general or preliminary examination and the doctoral dissertation, which has been begun prior to the prelims and is viewed not as a comprehensive tome, but as a crisp and relatively short piece of work equal in quality to a respectable journal article.

In short, it can be argued that the sciences are on one horn of a dilemma and the humanities on the other—one requiring minimal structured course work but little flexibility because grant and contract conditions focus time and energy into unnecessarily narrow channels, the other requiring too much structured course work and little flexibility because of preconceived notions that all students should run the same course. Obviously, I am saying that the optimum lies somewhere between the two extremes.

While the curricula of some humanities departments have been revised in the interests of greater flexibility, others preserve the best nineteenth-century standards and practices. Unexamined degree requirements tend to become outmoded. To the extent that they are obsolete, rigid adherence to such requirements simply because they are sanctioned by time contributes to the view that prevailing doctoral education is irrelevant to the aspirations and concerns of the emerging generation of scholars that some day will replace us. In presenting this argument, I fully realize that the question of relevancy is much more than a matter of curriculum or degree requirements. The call for relevancy is more a matter of process or style than the structure of program. Unlike some of my colleagues, I am not haunted by a spectre of graduate education degenerating into a political stance, superficial speculation, or sensitivity training. Indeed, if advanced study does so degenerate, I suspect it will be an attitude of fear and resistance to "relevancy" that will contribute most to its demise. The younger generation has *not* gone mad; only a few individuals are carrying forward a long tradition of madness not unknown to any society. And these are made more visible by the course of events in our world of today.

Relevance is relatedness to experience. Even knowledge for its own sake, to be appreciated, must have a foundation in experience. If we have in fact lost much of this relevance in education and thus abdicated educational leadership—as the teachers of Greek and Latin did in the late eighteenth and early nineteenth centuries—then we have lost it for the same reasons. Our style, in teaching and scholarship, fails to link the constancy of the human condition to the immediacy of social change. As Daniel Bell puts it, "The question is not 'who is this new man, the American?' but 'who is the generic man that stalks the world today?' ".[4] In the classroom and in the journals we, as teachers and scholars, project instead an image of ourselves as Victorian man pacing nervously around the concerns of what may well be the Age of Aquarius.

Scientific and technological advances have created what is now called the Post-Industrial or Technological Society. In the process, new power structures have emerged, and knowledge has been divorced from values. On the educational scene, while undergraduate education no longer prepares men for an understanding of themselves and the vastly complex and rapidly changing social organization, graduate education has despaired of the task of joining literary and sociological imagination in favor of specialization disguised as professionalism. Relevance today is not achieved by a sprinkling of topical courses and research institutes on Viet Nam, nuclear control, urban crises, race, or poverty. Neither is relevance attained by a few generalizations on whatever issue happens to be bothering people at the moment. Relevance is a truly intellectual understanding of *secular man* and *technological society* in all its aspects: occupational structure, power distribution, art forms, language, the function and value of the individual, to mention only a few.

One can hardly blame troubled students because they are inarticulate in defining the roots of their discontent or because they grasp at educational forms that are intellectually indefensible. That is, one can hardly blame them when the faculties and administrators are not even sensitive to the pace of change. After all, they are the students and we are the teachers. Yet they are forced to take the initiative, misguided though it is in some instances, because we do not make enough effort to provide a sense of direction by which they might begin to understand themselves and their environment. The great and very difficult challenge to the humanities and social studies—indeed to the sciences as well—in the decades ahead is a forging of humanistic concepts meaningful to secular, urban, behavioral man; a total re-thinking of the social order; the re-welding of knowledge to values; and the possibility of shared intellectual experiences.

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[4] Daniel Bell, *The Reforming of General Education* (New York: Anchor Books, 1968) p. 151.

III

Allow me to pursue my fantasy. Assuming that the graduate schools were to have exemplary programs of teacher preparation and that Ph.D. programs are swept clean of the cobwebs of irrelevancy without leaving behind nothing but guilt feelings, one might turn to the relations between the university and society—in particular between graduate schools on the one hand and government, alumni, and the public on the other.

Most often this relationship is conceived of in terms of money. True, we need resources to do our job well. True also, unlike industry we must beg for these resources. However, our case for expanded support leaves much to be desired. A review of reports from committees, task forces, and representative associations conveys the impression of some statistical extrapolations and a massive outstretched hand backed by a cry for more—more for international studies, more for research, more for community colleges, more for graduate schools, more for well-established institutions, and more for new ones.

Is it at all realistic to expect a national scheme of educational development and a set of rational priorities? What are the criteria for determining the allocation of finite national resources among alternative uses that include natural conservation, urban renewal, highways, and defense as well as education? What about the allocation between elementary and secondary education on the one hand and higher education on the other, and the allocation among different programs and institutions within higher education? An attempt to answer these questions must acknowledge that the system of education is itself a central cause of the difficulty. Having prided ourselves on diversity, we now find that this very diversity and multiplicity makes nearly impossible a consensus on priorities. By free-wheeling competition modeled on the market place, we invite the principle of offense to none and a share for all. Perhaps asking for something better is asking for too much. We have been able to live with the situation, and it's conceivable (though not certain) that we can continue to live with it. I would only note that the research experts, having devised powerful analytical tools, have not applied these tools to the problem of the allocation of public funds among alternative social enterprises. Thus, we do not have the foundation needed to build priorities.

Aside from money, and probably of deeper concern, is the lack of communication between universities and the public. The man in the street simply does not know what we are all about. This is especially true of graduate education and what appears to the layman as esoteric research. That universities exist to transmit a fixed and unchanging body of knowledge for the single purpose of preparing young people to practice an occupation is not an uncommon view. Witness the advocates of suppressive legislation who have gone through a college education and come out uncontaminated by any respect for free inquiry. Witness those who judge research solely in terms of better seed corn or miracle drugs. In presenting budgets that will appeal to these interests (because that is the realistic thing to do), we have not only convinced the suppliers of funds that we are legitimate, we have also, to a large extent, sold ourselves on tangible, immediately applicable results as the measure of legitimacy.

It does no good to curse the so-called anti-intellectuals. The fact of the matter is that the universities have been indifferent about explaining why new truth has value or why the university must be autonomous if its purpose in society is to be fulfilled. Universities must make a concerted effort to gain greater appreciation and understanding for two simple reasons: (1) those who pay the bills have a right to know us better; (2) only we can be trusted to communicate our purposes with minimum distortion, because we have the greatest stake in pure knowledge.

IV

I have covered my three topics. Still, unless I have already turned you off —because what I say is irrelevant to your experience—I am tempted to mention a fourth. Little that I have said is new. On teacher preparation, for example, over sixty years have elapsed since the first criticisms were aimed at the Ph.D. for its failure to prepare college teachers. The President's Commission on Higher Education in 1947, the Conference on the Preparation of College Teachers in 1949, the President's Committee on Education Beyond the High School in 1956, the Association of Graduate Schools in 1957, and several publications from 1960 to date have all pointed up the problem. Yet we continue to grind ever so slowly toward the inevitable, while social needs grow more pressing.

Reforms in the T. A., and in Ph.D. programs generally, have been emphasized for at least a decade. Yet we continue to grind ever so slowly with some reforms in a handful of institutions, while the doctoral scene nationally remains about the same. What I have to say that may be new is a barefaced public admission of this fact.

Our councils of deans, our professional associations, and our separate institutions are inherently conservative. I have heard it argued that this inherent conservatism is inherently healthy. For conservatism acts as a shield against untested ideas and as a buffer against the cyclical swings of fashion, preventing the fashionable from converting stable progress into chaos. No doubt there is truth in the argument, as there is some truth in almost any argument. Nevertheless, there is historical evidence that our conservatism often impedes worthy innovation. Conservatism in the universities has been an impediment to progress at those points in history when the larger society has been undergoing fundamental changes.

If, then, Western culture is changing from an Industrial Society to an X Society, and if the pace of change is accelerating at a rate unknown to previous cultures, our institutions are likely to be rusty vehicles for confronting, understanding, and controlling change. We like to rap, but we seem unable to act!

I am quite aware of the dangers that this type of "hysterical" or "alarmist" elocution may present to honest innovation. Some things are better kept within a small fraternity and not broadcasted publicly, for they give consolation (indeed weaponry) to the shortsighted and thickheaded enemies of contemporary education. However, I, for one, prefer to run this risk, as long as it appears that the outside enemy is less destructive than the inside enemy in the long run.

The newspapers reflect our dilemma. Backlash in the left-hand column and in the right-hand column proposes that such outside agencies as HEW impose educational change upon the universities. The crucial question is whether we can demonstrate that we can handle our own affairs—and at the same time successfully defend the value of truth untrammeled—or whether some organ of the larger society will solicit change by tempting our need for dollars, perhaps without adequate understanding of or full respect for the unique functions of the educational institutions. The answer depends upon the universities' initiative and will to recapture educational leadership.

Lawson Crowe

THE UNIVERSITY AND SOCIETY: ON BITING THE HAND THAT FEEDS US

If the foundations are destroyed, what can the righteous do?—PSALM 11:3

Radical students and faculty critics characterize our universities as servants of the so-called military-industrial complex. They say that we are hypocritical because we pose as detached and objective in our search for knowledge while fully committed to the self-interest of the white upper-middle-class establishment. In resisting their demands that the university as a whole take stands on current political issues, we argue that such action will polarize and politicize the university.

They reply that we have already politicized the university by accepting a role in society that is incompatible with our commitment to free inquiry and our posture of detachment. They say that we are responsible for the new knowledge we discover and the new objects we create, that we cannot be indifferent to the fact that new knowledge and new technology can be used for an indeterminate amount of good or an indeterminate amount of evil. Their accusations refer to our moral complacency before this ambiguity.

Without being judgmental but simply because it illustrates a point, consider the recent student demonstrations against defense research at one of our leading universities as reported in the *New York Times* and the *Chronicle of Higher Education*. According to the *Times*, this university has changed its policy towards defense research and is now seeking support for more socially useful projects. The *Times* quotes a dean partially responsible for the management of these research activities as follows:

> The university has set as policy a deliberate movement from Department of Defense and space research to a different mix: more and more research relevant to societal problems—mass transit and environmental problems.
>
> It's going to take considerable time to make the transition, however, and if we are going to continue on the same scale of operations [here at the laboratories], we're going to need lots of time and new money.

The dean went on to say that while a lot of money is available for military research, relatively little is available to solve the problems of peacetime society. He said that Congress must change the emphasis, not the university.

Of course, I prefer to believe that the dean was misquoted, but if by chance he was not, his remarks suggest that the decision to undertake classified military research was based on the availability of money more than on the university viewed as a center for the advancement and dissemination of knowledge. If this is a criticism of one university, it is also a criticism of every university in the country. I am willing to wager that few days go by without the graduate dean or the vice-president for research having to distinguish between an opportunity for the university and opportunism prompted by some special circumstance. Obviously, wrong choices have been made more than once and in more than one university.

One further quotation from the *New York Times* is of interest. Graduate research assistants work on defense-related research in the university referred to above. One of these students was quoted as follows:

> What I'm designing may one day be used to kill millions of people—I don't care. That's not my responsibility. I'm given an interesting technological problem, and I get enjoyment out of solving it.

Again, one hopes he was misquoted. If not, however, his view provides substance for the radical indictment of our universities and suggests that this indictment contains truth that we neglect at our peril.

Another problem associated with defense-related research has now risen with the passage of the Mansfield amendment to the recently approved military procurement bill. Senator Mansfield and Congressman Mendel

Rivers had different motives in supporting this amendment, but they agreed that its effect would be desirable, again for different reasons. The amendment bans the award of funds to any project or study unless it has "a direct and apparent relationship to a specific military function or operation." [1]

How flexible the Department of Defense will be in respect to this amendment is not clear. My guess is that the amendment will receive a liberal interpretation. In one way or another, basic research will continue to receive support. The burden will be on the DOD agency and not on the university to show the relationship of the project to a specific military function. Quite obviously, a rigid enforcement of this law will create problems for many universities.

The most interesting aspect of the Mansfield amendment, however, is its easy acceptance by the members of Congress. The mood of Congress and the public has changed. The effects of this change will be felt not only in the support of research by the Department of Defense but in other agencies as well. Congress and the public, beset by the problems of international and domestic crisis, want something for their money.

This change in mood is not surprising. State legislatures have increased tax support for higher education from 1.3 billion in 1959 to 6.1 billion in 1969, an increase of 337 percent. This growth in support, whether adequate or not, added to the staggering federal investment gives the public an interest in higher education and its products. In Congress, and among people generally, a large part of the animus against protesting students rises from the universal feeling that those who pay the piper should call the tune. Taxpayers and legislators have always expected the university to serve society. In modern times they have turned to the university for solutions to our acute social and environmental problems. In the face of these demands, universities will find a new test of their independence and integrity. To fulfill our commitment to the unbiased search for truth, we must always be in a position, when necessary, to bite the hand that feeds us. Recent developments suggest that we may find this increasingly difficult to do.

In 1968 the Committee on Research and Research Administration of the Association of Graduate Schools said:

> . . . perplexing problems face our local and federal governments. It is not unnatural that the public turns to the universities for solutions. People expect help in part because they feel that university research and training should have relevance to the current needs of society and . . . because they feel that there should be some tangible results from . . . an increasingly massive federal investment in higher education.[2]

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[1] *Higher Education and National Affairs,* (November 14, 1969) Vol XVIII, No. 40, p. 2.

[2] *Journal of Proceedings and Addresses of the Association of Graduate Schools in the Association of American Universities,* 1968, page 101–2.

These sentiments reflect the opinions of many government officials who have expressed the belief that universities must assist government in solving the major problems of our society. Oddly enough, this is one point on which members of the establishment and radical students agree. To those responsible for the operation of university research, it often appears that both the federal government and student radicals are telling us that after certain adjustments, which they will prescribe, the university will be the appropriate agency to bring about social change.

Although social science has made enormous strides, and although universities have organized interdisciplinary research institutes and other sophisticated collections of social scientists, our approach to social problems remains characteristically academic. The immediate university response to any crisis is to appoint a committee, which in turn establishes a new degree program. In addition, social scientists have organized bureaus of community service, centers for action research, departments of urban affairs, behavioral science research institutes, and similar agencies within the university. While the debate on the extent to which the university should respond to the demands of society goes on, significant portions of the community already engage in direct-action programs. We find social scientists as consultants and evaluators in the planning of various federally and locally sponsored urban programs. Campus agencies conduct training programs for social counselors, city administrators, and so forth. Some of this work is supported by federal agencies. In principle, this activity is justified by the expertise of our faculty and the university's responsibility to provide public service. It does not entail much new research, and most action-oriented groups of faculty are not concerned with academic training of graduate students. On the whole, these activities are conducted in keeping with our conventional model of the public or semi-public institution serving many needs while maintaining a measure of detachment from the political process.

Neither new degree programs nor limited public service activities are bad strategy. Degree programs provide people trained to deal with social problems, and the role of university professors as consultants and evaluators has long been established. The question that interests me, however, is whether an extension of this activity and further basic social-science research is really all that is expected or whether Congress and the taxpayers expect something more. There is some evidence that the public expects more.

At least one consideration in the mind of Congress and the public is the fact that universities have made enormous contributions in agricultural science and technology, in medical science and technology, in engineering, and in physics. Most recently, the universities have supplied a portion of the basic science and manpower in the space program. The public assumes that universities can supply comparable technology to overcome our vexing social problems. If such a social technology is not now available, it is assumed that it will be shortly after an appropriate infusion of federal funds. Are these assumptions likely to be true?

In August 1969, the National Science Foundation released a report by the Special Commission on the Social Sciences recommending the creation of a number of social problem research institutes, each devoted to a particular problem area. The Commission recommended that the National Science Foundation allocate ten million dollars for the interdisciplinary centers in 1970 and expressed the hope that twenty or so could be established throughout the nation in the near future. These institutes would consist of social scientists and specialists from other disciplines and professions. They would produce the relevant data for their clients, government or other organizations facing particular social problems, and would expect to work closely with them.

In October 1969, the National Academy of Sciences and the Social Science Research Council released a report recommending the establishment of a new kind of graduate school, specializing in applied behavioral research.[3]

Meanwhile, the National Science Foundation budget for fiscal 1970 contains a ten-million-dollar item to begin a program of interdisciplinary research relevant to the problems of society. This program would provide funds for starting multidisciplinary social research efforts on university campuses. Whether one program or another is adopted, it seems clear that more of the conventional piecemeal social research now conducted in universities is not what is wanted.

The Special Commission on the Social Sciences reported that "The present organization of Social Science Research is not well oriented to attacks on national social issues." If a program of basic research, training, consultation, and evaluation is to be effective on a national scale, vast sums of money will be required. Whether the work is to be done by independent institutes or within university agencies, a major portion of the staff will presumably come from universities. Current research and graduate training may be affected either by reallocation of university resources and priorities or by removal of currently available faculty from the university campus. A program designed to make social science immediately applicable to current social problems invites universities to change the present form of research in the social sciences and to change the purposes of the graduate training connected with that research. We may find that we are being invited to change the purposes of the university as well. Perhaps this would be a good thing, but it is prudent to consider what such changes might entail.

I suppose I am worried about the implications for the university in the notion of *applied social science.* To what extent should universities undertake activities supported by federal and local government that require direct involvement in the political process?

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[3] *The Behavioral and Social Sciences: Outlook and Needs* (Prentice Hall, N.Y., 1969).

The expectation that universities can participate directly in the political process in ways similar to the way they participate in the development of agriculture and space or medical technology ignores political realities at both the local and federal levels. The question has to be faced, Whose social technology and for whose welfare shall it be applied? This is a political question and requires a political answer. There is very little about current social science that leads me to believe it can provide acceptable political answers.

In the ghetto, for example, the sophisticated, abstract research of the social scientist is poorly understood by those he hopes to serve. To poor people, he looks like another agent of the oppressive establishment. They have been surveyed and studied before and nothing changed. They fear that data the scientist gathers will be used against them rather than on their behalf. Because of their continuing conflicts with police and other government agencies, they suspect that the researcher may be attempting to invade their privacy, or what little they have. They see no reason to evaluate programs that they already know to be inadequate. They see social research as an excuse to delay the changes they desire. They see no need for further studies that report that Negroes in the ghetto are not able "to participate in the normal choice of housing."[4] If they could express it, they might say that it may take an economist to recognize the connection between disposable income and environmental pollution, but any ghetto inhabitant can recognize the inadequacies of the municipal garbage collection agency.

The behavioral scientist's investigations also threaten the interests of local and federal government agencies. Consider the likely response of the welfare or police departments to criticism and proposals for change from university investigators. It is not difficult to imagine how class and racial antagonisms and the resistance by vested interests at all levels would thwart the attempt by university agencies to participate directly in the political process.

Political engagement requires ideological commitment. American universities have "sanitized" their ideological commitments under the rubrics of "public service" or "service in the interests of national security" or some similar device. These rubrics may no longer satisfy the public who support the universities when our activities in applied social science adversely affect their economic and social interests. If the university as a whole or some significant fraction of it engages directly in the political process in order to effect social changes, no matter how desirable, the opportunity will be open for control of the university by the radical left or radical right. I am sure that you have noticed that while the university may have some power of moral persuasion, it has virtually no political power. This is why it is so easy to rape Alma Mater, that poor defenseless old crone. Anyone can attack her with impunity, a fact that politicians and student bullies know very well.

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[4] James Kalish, "Flim Flam, Doubletalk, and Hustle: The Urban Problems Industry" *Washington Monthly,* Vol. 1, No. 10, 1969, p. 10.

These thoughts suggest that universities should exercise extraordinary care in undertaking research in applied social science. The question "Is this project appropriate for the university to undertake?" should be weighed carefully by the research administrator, for it is possible that some activities could have disastrous political consequences for the university. These thoughts also suggest that the recommendation of the Special Commission on the Social Sciences to establish independent problem-centered research institutes may have merit. At any rate, such institutes would be independent of universities; their purposes could be limited and their political relationships clearly identified. This approach seems more feasible than an effort to tack applied social research onto existing university programs. It is probably true that the establishment of such institutes would draw some faculty away from the universities, but this would be a temporary problem. In the meantime, the establishment of institutes would not prevent the National Science Foundation from going forward with a program to develop multidisciplinary research groups on university campuses or universities themselves from establishing graduate schools of applied behavioral science. We could expect considerable interaction between such university groups and the independent institutes. Indeed, this device may be the means to "sanitize" and promote more direct university involvement in the process of social change than would otherwise be possible.

Of course, my worries may be extravagant or misplaced or both. For better or worse, universities are changing, and none of my concerns may be relevant. There is also the rather good possibility that Congress will not be persuaded, as it has not been so far, that university social scientists can provide the answers we need. I suspect, rather darkly, that the social scientists themselves are really the only ones who think they can. In any case, someone somewhere must offer solutions to our problems. Despite the dangers, in one way or another, universities will have to try.

Second Plenary Session: The Dimensions of Graduate Study

Thursday, December 4, 7:00 p.m.

Presiding: Alvin H. Proctor, *Chairman, Council of Graduate Schools*
Keynote Speaker: Rev. Robert John Henle, S. J., *President, Georgetown University*

R. J. Henle, S.J.

THE DIMENSIONS OF GRADUATE STUDY

Of all the occasions that I have had since coming to Washington, in many ways this is the one dearest to my heart.

For many years when I was graduate dean, I felt that we graduate deans were missing a great opportunity in being divided the way we were into local and parochial kinds of organizations. We were divided into the Midwest Conference, the Pacific Slope Conference, and the New England Conference—and it seemed that for some reason or other graduate deans would never get together on a national scale.

And so, I consider it to be one of the achievements of my graduate deanship that I was, indeed, a representative of the Midwest Conference on the committee that originally projected this organization and helped set it up.

The other very important thing that I helped do was to select the president of this organization. I am proud to have been a member of the committee that selected the first president of the Council. And I will ask you and Dean Arlt to bear with me when I say that it has been a warm, human, and administrative experience to have been able to meet Dean Arlt, to help select him, to work with him, and to observe the wisdom that he brought to this post, the finesse with which he operated in what were many difficult situations, and I think, above all, the human warmth of this great gentleman who has been our president and your president. It is a pleasure, therefore, to be here. When I was asked to share this platform I was deeply moved by the fact that Dean Arlt was retiring and that we would be together once again here before the Council of Graduate Schools of the United States.

I have said that I would talk about the dimensions of graduate education. I think, in a true sense, I'm going to talk about one dimension of graduate education.

Over the years, at many meetings and in many writings, I have taken positions on graduate education. In fact, I think one thing I can say about my career is that I've always taken positions. When I came to Georgetown for the first time, in June, I let it be known to the students that I would guarantee that any student who wanted to see me about anything would have an appointment with the president. And they came.

Representatives of the newspaper, the undergraduate student body, the medical students, the law students—endlessly they came. And one of the complaints they had consistently was that they never knew where the previous president stood. They said, "Well, you know, we might not agree with what the president stands for, but we'd like to know."

And I said "All I can say is that over the years I've been criticized and hated and complained about, but I don't believe anybody ever said that they didn't know where Henle stood."

And so, I think this is true. The students at Georgetown may not like what I stand for, but they know where I stand. And I think this is true with regard to my positions in graduate work.

I would like to review a few of these positions before I go on to what I want to talk about very seriously tonight. I have argued that research is an essential part of the doctoral program, because a research approach to a discipline is an essential part of understanding a discipline. I have opposed every proposition that we would have some kind of a teaching graduate degree that would dispense with the research component.

I think that if we are to have teachers who will bring to the universities real mastery of a discipline, these teachers must be trained according to a program that involves an insight into a discipline that only the mode and methodology of discovery in that discipline can give them. It's one thing to know a great deal about a discipline, to know a great deal, for example, about chemical substances and their properties. It's quite another thing to understand how the discipline is constructed, to know what the basic assumptions of the discipline are. One must be able to look at the discipline from outside to see it in respect to other disciplines.

I think that the only way you can get this kind of a view of a discipline is to go through the process of discovery, of creating the discipline. And this, to me, is essentially what research is.

In the talk I gave at the Arrowhead Conference, I did, however, take the position that not everything that passes for research in our literature or in our graduate schools is the kind of research that makes for educational effectiveness. A great deal, I think, of what is put forward as research, not only in our journals but in our dissertations, is simply a kind of formula problem-solving or a following-out of the directives of a professor who himself is involved in a much larger project or is routine kind of application of principles already well-known. I don't think this has very much educational value for a graduate student.

But by and large I have argued over the years that, given this component of research and the requirements of the American doctorate, our graduate schools have produced the best training and education for people who want to understand a given discipline in depth, with real mastery of the discipline and high creativity. And I still believe this, despite all the attacks on our graduate schools and our graduate programs.

But for the purposes of the discussion which I would like to carry on with you right now, I'd like to ask you to think of research as being divided somewhat differently from what we're used to.

We're all accustomed, perhaps with many reservations, to divisions like basic and applied research. I'd like to suggest a threefold division, and only for the purposes of this present discussion. The first division is research that is mission-oriented and problem-oriented, for example, where such-and-such a chemical company is interested in developing a detergent that will outbrighten, out-bleach, out-cleanse any other detergent on the market, while effecting a self-cleaning process in the washing machine, purifying the air in the house, and preserving the delicate hands of the lady of the house. This problem is given to a series of chemists to solve, and they work at it. Or we want a super antiballistic missile, one, for example, that will not only search out and destroy a missile in flight against our country but will thereafter continue on a kind of a homing device to the base from which that missile came, thereby destroying the home base of the missile itself. This is given to a team of physicists and engineers to work out. You've got a definite goal; you can measure success. You can cost out the expense of achieving it. We know approximately what the research cost that we needed to put a man on the moon. We know what the research cost for the development of various antibiotics.

This is a kind of research that is omnipresent in our industrial complex and is very much in evidence in the project activities of our universities. It tends to create a mentality in which we think of research as a kind of production. We've got a measurable goal, we know where we're going, we want something done, we can figure out how many hours it takes to do it and how many months. We see research as definite progress towards a product on which we put a price tag, and we can measure success.

The second kind of research that I'd like to indicate here is research that I will call "area designated." This is not research that has a specific problem orientation, a mission orientation, or a direct kind of product that we're looking for. I think, offhand, the best example that I can give you of what I'm thinking of here is involved in many of the so-called Themis projects around the country. At Georgetown, for example, we have a Themis project which involves our physics and chemistry department in basic research with regard to lasers. The object and intent of this kind of area-designated research is not to solve some definite, clearly defined problem, but rather to develop within centers of excellence throughout the country a broad, basic capability with regard to research in a given designated area like lasers or weather phenomenon or something of this sort. But there is certain measurability of success here. There is a certain direction of success, a certain area, and a certain conventionalism with regard to this. We've got to define the area within which we're working, we have to define it in terms of known knowledge.

The third kind of research is much harder for me to describe. I think of this third kind as being the freewheeling sort of research that doesn't start out with any clear-cut problem. It doesn't start out even with any limits to the designated area within which it takes place. Perhaps you wouldn't even think of it in modern terms as research. It's a broad, intellectual kind of scholarship. Its methodology may be basically something that you can't really describe in the way that you describe methodology in a proposal of the National Science Foundation. Its basic instrumentality may be simply a matter of reflection, a matter of intuition, if you will.

This is the free-wheeling, roaming curiosity and insight of a richly endowed, highly trained, highly educated intelligence moving around between disciplines, looking and accepting clues wherever they arise, following the argument, as Plato would have said, wherever it goes—the kind of leisurely scholarship, a kind of scholarship in breadth and depth, a scholarship that doesn't start with a problem but rather defines its problem as it goes, working out from a reflection upon given fact, a reflection upon past experience, a reflection upon human experience.

I read somewhere recently that when the first discovery of lasers was made it was more in the nature of a solution looking for a problem than of a solution to an already existing problem.

I would ask, for example, how would you program the kind of thinking and reflection and intuition and broad vision that led to the first formulation of Einstein's theory of relativity? Or, in a simpler kind of thing, how would you have programmed the development in Newton's mind and life of the theories of celestial mechanics and the law of gravitation? I don't think this kind of discovery can be programmed.

There was a hilarious article published in a journal that came out of New York University some years ago which assumed that in 17th-century England they had the same kind of framework for government grants that we have today. It had Newton applying for a grant to develop his theory of gravitation. In the House of Commons some question was raised by the peach farmers of England because they understood that the grant involved something about falling apples. This highlights the problem of how you would program that kind of research.

I have been on committees and commissions of the government looking at project research proposals, and I understand very well that when you are dealing with federal funds you can't take a long shot and gamble that you have a rather inarticulate Einstein making a proposal. By and large they want to know if the problem is well stated and formulated, how much previous research and the literature on the subject there is, whether the methodology is clearly formulated and scientifically acceptable, and ways of evaluating the research.

The kind of thing I am talking about, I don't think, can be reduced to this kind of research, to this kind of methodology. And several times, without any obvious effect as far as I could see, in some of these councils I said, "You know, gentlemen, you are rejecting this proposal because the methodology doesn't meet the standards of current methodology. I would just like to point out to you that the greatest breakthroughs in the history of science have been those which revolutionized methodologies. And the greatest handicap in the whole history of science has always been the insistence on accepted methodology. Progress has been made by moving really outside of accepted methodologies."

Well, the kind of thing I am talking about, it seems to me, is being squeezed out of our universities; it is being squeezed out of our intellectual life. Our professors of physics and chemistry and biology have been so taken up with clearly defined project research, mission-oriented research and even area-designated research, they really have no time to do the kind of thing I am talking about. They are rushing into the office of contracts and grants at the university to get a last-minute signature, they are getting their reports off to the federal government, they are going to a foundation, they are formulating what they think will get research support, they are hiring research assistants. They are terribly busy men. They are busy with mission and project-oriented research and they are busy to a lesser extent with area-designated research. And the people who are not really involved in this hurly-burly of project research are people who are considered not to be research people or scholars at all.

You know, it is significant in this connection that our word "school" and its medieval and classical Latin ancestor "schola" is derived from a Greek word which means leisure. To the Greeks, intelligent operation, learning and understanding are functions, in many senses, of leisure. One had to have time to think and to reflect, to compare, to develop insights.

I am concerned that in our universities the broader kind of reflective scholarship that looks more deeply to the broader questions of human knowledge and therefore of human life is being squeezed out, is disappearing, is not being attended to.

I see this as one reason why in many ways our young people feel that our universities are irrelevant, because as you do squeeze out this broader kind of reflective scholarship, you also squeeze out a broad view of society and of values and of human priorities and of determining the destiny of our society.

It is not merely that I am concerned about the future of learning. If that were the only concern, it would be serious enough, because a learning which does not develop the overarching intelligent view of the whole of human culture is a learning that is bound to become plebeian, prosaic, irrelevant, splintered, and more and more ordered to technical ends rather than to human ends. I think we have arrived at a point in our society where this kind of scholarship, this broader kind of use of human intelligence, this deep reflection about the total meaning of human culture and human society has become absolutely critical.

The reason I believe this is that in any society, and most of all in a society that has become as sophisticated as ours and a society that is a democratic society, that is not ordered by the mores of a court or the power of a dictator or the example of an aristocracy, there must be some fundamental common acceptance of the meaning of human life and of society.

Walter Lippmann spoke of a public philosophy. John Courtney Murray developed this into the notion of a basic consensus at the center of society, a consensus that was not a political consensus because within a democracy a consensus which governs the total society is a framework within which it is possible to conduct political differences, within which it is possible to have political parties and variants. But unless the political parties within a democracy have some kind of a basic consensus about the meaning of that society, then you cannot even operate a political system.

John Courtney Murray argued that this basic consensus is not a question of popular goals and popular votes. It is not a question of political consensus, political parties, but something deeper than this and yet not as broad as a popular base, that it is really created by what he called the wise and the good men of the society, which in a sense reflects a certain dictum of medieval democracy where they talked about the best decision being made by the *sanior et major pars,* the sounder majority of the people. Unless there is this kind of leadership, which is not political, not popularist, but is basically a leadership of wisdom joined to integrity, there is no basic consensus. I would like to submit that this kind of basic consensus is collapsing in our society, that we do not have enough wise, scholarly men and women of integrity who are devoting their time to reflection upon the meaning of human life and of our society and thereby creating through the universities, the educational system, and through an influence upon the general public of our nation a consensus of value. I believe we are in a fundamental crisis of value. We talk of the generation gap. I don't believe the basic question is the generation gap. It is true that more young people are on one side or the other of this value crisis than old people because many of the older people are still unaware that our society has any value crisis in it, and for that reason they simply cannot understand the anguish with which our young people view our society, view their parents, view their institutions, view our nation.

We are coming to positions where we have dividing lines within our society across which we cannot speak except in the language of obscenity. If you have a common consensus and you have political differences, these can be argued. Rhetoric can be used. Dialect can be used. But if there is not a common respect and a common acceptance of values, then invective is the last kind of rhetoric that is left to us, and we see this all over our country. We see it among our young. We see it among our old. We see it on our campuses. And this is going to deepen and continue unless we can restore some basic consensus in our society. And I would like to submit that this is a task to which our universities should address themselves.

Theoretically our universities are centers of learning, knowledge, understanding, and in the great tradition of the West, they ought to be centers of wisdom. The only places we have got to turn to are the churches and the universities. Many of our people are not turning to the churches. They must turn to the universities.

Our scholars cannot allow themselves to be immersed twenty-four hours a day, year after year, in problem-oriented research when the great task of our society is not technology, it is not the discovery of another antibiotic, it is not the question of creating another chemical substance, it is not the creation of a new weaponry, but it is the solution of the meaning of human life in this society today in this world, and therefore of the future of the species man on the planet earth.

We can no longer talk in national categories and categories of the old-fashioned self-interested nations. We have got to think of mankind. And unless we can reach some kind of a basic human wisdom that will permeate the globe and dictate the human decisions of the future, if we continue simply to be settling this technological problem, that technological problem, this weaponry and that defensive weapon, I see no future for the human race on this planet. And what the year 2000 will bring to us will depend to the degree in which our scholars and our saints can combine to produce a wisdom that will become a human consensus. This is the dimension of the in-depth study which I think is appropriate to universities and to graduate schools and which I think we are failing to give our people. And I think many of our young people who are operating on a kind of an intuitional feeling about what is missing are rebelling against precisely this. In many of our disciplines we have people telling us that the concerns of the older professors and the older scholars are irrelevant, that they have not faced up to the basic assumptions of the discipline and its relevance to human life. I think they are all saying the same thing, perhaps in an inarticulate, exaggerated way. I think we have got to come back to put into our university life a kind of leisure to think, a respect for reflection as opposed to a systematic step-by-step scientific methodology, a concern for totality rather than for breaking everything up into small problems, a concern for values rather than for an effort to be so value-pure that what we do has no relevance to human happiness and human welfare.

This is a dimension of graduate education, of university life, that I think we should restore. I think it is vital to the salvation of our society and to the salvation of the world of learning. If we don't do it, I think the world of learning itself will be committing suicide, and consequent on that suicide will be a suicide of the species man on the planet earth.

Third Plenary Session: The Relative Roles of Faculty and Students in Academic Decision-Making

Friday, December 5, 9:00 a.m.

PRESIDING: Joseph L. McCarthy, *Past Chairman, Council of Graduate Schools*

Stephen H. Spurr, *University of Michigan*
Michael J. Pelczar, Jr., *University of Maryland*
W. W. Betts, Jr., *Indiana University of Pennsylvania*
Elton S. Carter, *University of Nebraska at Omaha*
Darlene Roth, *George Washington University*

Stephen H. Spurr

FACULTY POWER VERSUS STUDENT POWER

No one questions the right of faculty to participate actively in the academic decisions of American colleges and universities. Few, I suspect, question the equal desirability of student participation. Students can bring to academic decisions a freshness of opinion, an undiluted critical appraisal, and an evaluation of the academic institutions of the majority who constitute its chief clients and indeed its only reason for being. Furthermore, there is educational merit in student participation in academic decision-making. Students who participate actively and regularly on university committees find their experience contributing greatly to their maturation.

With increasing recognition of these values and under pressure from the students, universities are beginning to involve students in a wide range of academic deliberations and policy formulation. All of this is to the good.

There remains, however, a real issue yet to be resolved. This is the issue of the relative role of students and faculty in the *ultimate decision-making authority* within the university. Put baldly, it is the question of *faculty power* versus *student power*. This issue is a real one; it cannot be dodged. Increasingly, students dispute the traditional concept of the university as an institution established by the state with authority for most academic decisions delegated by the governing board to the faculty. They argue instead that such authority should be delegated to the students themselves. As peripheral issues are settled on many campuses through negotiation and compromise, student activists are increasingly pushing for confrontation on the very basic grounds of student authority in such traditional faculty matters as faculty appointments, admissions, program requirements, and degree certification.

This conflict, of course, is as old as the university itself. The University of Bologna was formed in the eleventh century on the student-power model, and student power has continued to be an integral part of the Latin university today. In contrast, the University of Paris was founded at about the same time as a faculty association, and both the northern European and North American universities since have been based on faculty power. Student-faculty confrontations have recurred many times over the centuries, and many adjustments have resulted. Generally, however, the faculty has retained the upper hand in the north, while the students have held the ultimate power in the south.

Both historically and at the present time, universities based upon faculty power have in general been governed by consensus methods and have been productive in scholarship, while universities in which student influences are strong have been heavily swayed by confrontation tactics and have become highly politicized.

In continental European universities of today, major problems may be traced to a considerable extent to the fact that the faculties of these institutions do not control either the numbers or quality of sudents admitted to the university and to the fact that these faculties have little or no control over conditions under which students continue in the role of students at the universities. Where this has happened, the universities have generally ceased to be distinguished.

While one should hesitate to draw cause-and-effect conclusions from such a correlation because of associated confounding factors, we have little historical evidence indicating that a highly politicized university community can long continue to be productive in the realm of unbiased scholarship—or indeed that it can add much to the cumulative wisdom of our culture.

In the north European and American model, the institution is based upon what may be termed the "generational concept." The faculty represents the current generation of scholars charged with training postulants for admittance into the community of scholars. It is the faculty alone who are citizens of that community and who are therefore enfranchised in it. Under this concept, the faculty as a class of established scholars have the responsibility for exposing aspiring scholars to the accumulated wisdom of our culture. From this, the student will take what he wants, add to it, modify it, and—when he in turn becomes a member of the generation of faculty—will similarly expose the next generation to a revised accumulation of knowledge.

The faculty are identified by the fact that they are employed as such and have received professorial rank on the recommendation of their peers. Students are identified by having been so designated by the faculty. They apply to the university for admittance and pay for the privilege of being in it.

In sharp contrast, many students today view the university not as an institution of the state based upon the generational concept but rather as a city-state itself, as a political unit in microcosm. Under the city-state concept, the university is considered to be a self-contained community, having all the rights and responsibilities of a political body. As such, it follows that there should be only one class of citizen within the community, and each citizen should have an equal right in determining the affairs of state. Under the one man-one vote principle, the students should be the dominant electorate. At the very least, the student population should be recognized as a separate but equal group with the faculty and should share in university government on a bipartite basis. Since the students under this concept are a constituency in themselves, they should be judged only by their peers, and they should determine who should be classified as a student and who should be separated from student status. Since they form the majority in any one class, they should determine how the course should be structured, what textbook should be used, and what, if any, evaluation procedure should be followed. Preferably, they should run the university. Failing that, they should be a self-governing population in their own right.

These concepts follow naturally if one conceives of the university as a city-state in its own right and if this city-state is governed by the slogans of the civil-rights movement, the urban issue, and the black-power movement among others.

It is difficult to argue against this line of reason unless one questions the basic concept of the city-state university. When the student activist harangues that students are now at best second-class citizens, the faculty member does not score by retorting that students are not citizens in the university at all, franchisement being reserved for the faculty. When faculty members attempt to reach a compromise position with students on matters of school governance, they may, if they are not careful, compromise the basic principles on which the university is based. Acceptance of the principle of bipartite participation in university governance does in fact establish student citizenship on a separate basis than that of the faculty. Although such bipartite governance may be temporarily acceptable as a gain for student power, the next generation of students—and a student population in generations is only one year apart—will inevitably press for full student participation on the basis of one class of citizenship resulting in a one man-one vote principle.

It is doubtful whether either model is completely acceptable in our place and time. The generational model unmodified by student input has come under increasing attack as the faculty has become increasingly professionalized. On the other hand, the city-state type of institution would be so radically different from the universities we now have that it is doubtful that it would replace the present generational institutions as vehicles for bringing together, assessing, and distilling the accumulated wisdom of the ages and of the present generation of mature intellects.

In working toward a mutually acceptable model for the university of the future, the faculty must keep two issues clearly in mind. First, from a tactical viewpoint, the continued interaction of the faculty consensus approach with the student confrontation approach will inevitably result in continued movement toward the goals of the latter group. The compromises worked out yesterday become the targets for confrontation attacks today. Regrettably, confrontation tactics can only be met by confrontation tactics. Mediation that disregards basic principles can only lead to the destruction of the university that we know today. Perhaps this is desirable, but we should at least realize what we are doing.

Second, on basic principles we should not forget that the university exists on franchisement by the community that finances and otherwise supports it. The community at large is formally represented by the university's governing board, which delegates to the several faculties the basic responsibility for determining who should be admitted as a student, under what conditions an individual should continue as a student, and when he should be graduated or be otherwise removed from student status. The faculties cannot abrogate their basic responsibility for establishing and enforcing those explicit rules of conduct that they consider relevant to academic programs under their jurisdiction. Direct and formal student involvement is desirable, and due-process safeguards are essential. In the last analysis, however, the faculty must determine what standards of behavior are to be required of all in the interest of the continued existence and development of the university.

Perhaps the most promising type of decision-making pattern is that which maintains the faculty near the apex (*i.e.*, under the governing board) of the organization, but in which the faculty in turn establishes committees and boards composed of both faculty and students to whom are delegated much of the basic responsibility in academic policy formation. In such a bi-level arrangement, the principle of ultimate faculty responsibility is maintained while both faculty and students join together in the development of academic policy at the working level. There would appear to be no reason for forming all committees with equal number of students and faculty. Rather, the nature of the charge should determine the composition of the committee. Some might well be composed entirely of faculty, others entirely of students, with all combinations in between being appropriate for various sets of responsibilities. Such committees could report to the faculty of the unit concerned, which would forward its recommendations in turn through administration channels as needed. As is usual with the academic decision processes, the original recommendations may be honed and polished with each successive step, but will seldom be reversed. Student activists may initially feel that they are given an inadequate voice in such a system. Students who put their hand to it, however, will find how influential their voice can be when applied intelligently to the academic decision-making system that wants and needs their input.

Michael J. Pelczar

THE RELATIVE ROLES OF FACULTY AND STUDENTS IN ACADEMIC DECISION-MAKING

The title of my paper, in all probability, and particularly in the current atmosphere, semantically implies different things to different persons. It may suggest that there exists a harmonious interplay between faculty and students toward the establishment of academic goals and procedures, or that some type of struggle for power is developing with the students versus the faculty. Or it may suggest that the students' role in academic decision-making is relatively negligible or the other way around, or that the student's interest in determining academic policy is something just recently emerging, a new era of student involvement.

In order to initiate an exchange of ideas on the relative roles of faculty and students in academic decision-making, I will proceed by raising the following questions: (1) What has been our past experience relative to students and faculty involvement in academic decision-making? Are we facing something new or just a change in *style*; a different way of demanding the right of student participation in making policy decisions? (2) Is President Kingman Brewster's assumption correct that most students would rather have the policies of the university directed by the faculty and administration than by their classmates? (3) On the assumption that student-faculty groups are appropriate for academic decision-making, are they appropriate for engagement with any and all academic matters? (4) What specific insights are provided by students that are lacking among faculty in deliberations on decision-making? And finally (5) Should not both parties, students and faculty, be held accountable for the decisions they make?

Before we examine these questions, I wish to state my position with regard to the *credentials* of individuals in either category, students or faculty, when they desire participation in the process of academic decision-making. It is not too much to expect that individuals in either category should have established a record of successful performance as either a student or a faculty member. This statement should not be misconstrued as suggesting that only "conformists" or "establishment" people would be eligible. To the contrary, sincerely motivated persons with innovative, imaginative suggestions would be most welcome, and we need their ideas. However, individuals seeking this association to gain power, or individuals presenting non-negotiable demands, or individuals with a passion for disruption and denigration of existing programs without attention to constructive modifications—these individuals are inappropriate for participation in student-faculty decision-making processes. My idea of student-faculty participation in decision-making excludes those whose concept of such communication is in terms of a power struggle. Although it may sound somewhat trite and naive, particularly in these times of intermittent bold and gutter-type pronouncements, I subscribe to the kind of dialogue conducive to a rational and logical weighing of facts as well as to carefully thought-out opinions. Indeed, I would hope for an educated assessment of all relevant data that would lead to the evolvement of the most "correct" decision. Less than an atmosphere of mutual respect is not likely to produce this result.

Past Experience of Student Involvement

All of us realize that the current attempts by some students to gain more control over university policies are not new. We are familiar with events in the thirteenth and fourteenth centuries, when such moves were at their zenith. However, by the sixteenth century, a pattern of student life that fostered a high degree of administrative control had evolved. To bring us closer to the present, some describe the period prior to World War II as one of total noninvolvement by students on the university campuses. This was followed by a period of nominal involvement in the mid-fifties—the students were often described as apathetic—with the presence of a few students on a few committees.

However, during the sixties, the students raised their voices. They became active in response to special situations, for example, poor instruction or the need for changes in requirements, and presented an organized response to this.

Currently there is a desire for *general* involvement, student participation at all levels of university affairs: equal student voice and vote in all matters ranging from budget to housing to curricula to grading to appointments and promotions, and more—a grasp for student power.

I would like to take exception to the generally held opinion that student involvement is something discovered by the current generation or something that only existed in the Middle Ages. We have known effective, productive involvement in other generations.

Let me recall from personal experience that back in the thirties various student clubs and departmental organizations provided for very effective communication between the faculty and students. There was an atmosphere of mutual respect. The noise level was low; the academic objectives were high. These student clubs, as you will recall, had active interested faculty advisors. During the course of the year most of the faculty met socially and professionally with the student groups. The times were slower and the campuses smaller, but there existed an excellent opportunity for student input to faculty on all university matters. I simply want to establish the point that the opportunity for student input into academic matters was, in fact, readily available and very directly possible in years past.

To a degree the difference now is a function of size—size of the student body, size of the faculty, and size of the campus. Bigness does introduce complications, but we cannot escape from some degree of increase in size. There are simply more people inhabiting the same space, and we might as well adjust to this fact. It reminds me of the person who complained about being old, but he was quick to ad lib that the alternative was not very attractive.

There is also the matter of affluence. The current generation of students has the time to reflect upon national and global predicaments. They discern the gap between the ideals and realities in a democracy.

Qualifications and Justifications for the Student Role

What are the distinctive and special contributions that may be provided by the student in academic decision-making? Some students express the opinion that the university would be a better place if more students participated in decision-making. What is the basis for this assumption? Some feel that the student is capable of providing more creative and imaginative thought on matters being decided. Students are less attached to preconceived values and hence can be more flexible in their judgments. Students also seek a status of partnership or an association with faculty as members of a community of scholars. Finally, there exists an inherent attitude that the students have a right to be involved with the decisions that will directly affect them. Without this opportunity for participation, an apprehensive, disgruntled attitude may prevail. William Paley, the chairman of CBS and a trustee of Columbia University, commented on this feeling after student disorders on the campus, saying: "The university may seem [to students] like just one more example of the establishment's trying to run their lives without consulting them. . . . It is essential that we make it possible for students to work for the correction of such conditions legitimately and effectively rather than compulsively and violently."

The process of decision-making involves, among other considerations, the collection of all the facts that are pertinent to the subject under consideration. The more complete the factual documentation, the better the prospects for a "correct" decision. Students as well as faculty are capable of collecting the necessary facts; depending upon the issue at hand, one group might be more aware of sources than the other, but with appropriate effort and resources either group could produce the facts.

Opinions, experiences, and advice also need to be sought. Again, either faculty or students are capable of gathering this information. However, the question may be raised whether faculty, by virtue of experience, might not provide a more sound assessment or interpretation of varied opinions, advice, and experiences. Admittedly, there are likely to be instances where the gifted amateur might be equal to the seasoned professional. However, I do not think it likely that one could depend on consistent, eminently sound advice by the lesser experienced individual. Nevertheless, students and faculty working together could arrive at conclusions representing a synthesis of viewpoints as well as providing more assurance of a thoroughly thought-out solution.

On Students' Interest in Decision-making Processes— University Governance

The president of Yale University, Mr. Kingman Brewster, is quoted as follows: "I do not think that the great majority of students want to spend very much of their time or energy in the guidance and governance of their university." I would agree with this statement. And at the graduate student level, the student must be willing to dedicate himself fully to the pursuit of and the mastery of knowledge in his chosen field. He must have a strong commitment to his studies and research, especially research. I am sure that many of us would be inclined to question whether a successful graduate student has much additional time for these extracurricular activities.

However, this rationale is neither sufficient nor appropriate to exclude the student from some manner of participation in the deliberations that affect his educational opportunity. Participation in selected areas of the student's special interest could be of mutual benefit—both an educational experience for the student as well as a contribution toward the evolution of the institution. However, I must reiterate my contention that to be eligible for such participation the student must have demonstrated that he is indeed establishing a satisfactory record for himself as a student and that both the quality and the progress of his studies establish that he keep his sights on the prime target, namely, his academic program.

Decision-making and Accountability

C. Peter Magrath, Dean of the College of Arts and Sciences, University of Nebraska, has written: "Students are birds of passage who usually lack the expertise and sophistication to function effectively on complex university affairs until their junior and senior years. Within a year or two they graduate, but the administration and faculty are left with the policies they helped devise. A student generation lasts for four years; colleges and universities are more permanent."

President Kingman Brewster, speaking to student members of the Yale Political Union, said the same thing in a different way, stating: "I am convinced that representation is not the clue to university improvement; indeed, that if carried too far, it could lead to disaster. I am, rather, now convinced that *accountability* is what we should be striving for." I share this opinion, and I think that this point is central to the issue of relative roles of faculty and students in decision-making. In the broad sense the students are transient, the faculty is permanent; this is a short term-long term relationship. The degree of correctness of decisions can only be ascertained by testing their effects. This introduces the concept of time. In a simplistic fashion, this might suggest that any significant role of students in decision-making be limited to such matters that will have short-range effects.

They, like the faculty, should be held accountable for the consequences of their decisions. Without some adherence to the principle of accountability, I am afraid that we will only encourage irresponsibility and court disaster, as suggested by President Brewster.

As I have already suggested, there is undoubtedly much merit in seeking the ideas and suggestions put forth by our students. In many areas, their enthusiasms and keen vision can be of great value to all of us. In those areas of graduate student life that are most removed from us, they can serve as additional "ears" to aid all of us in helping to remain attuned to the general picture of student welfare. In most instances, participation on university committees is valuable preparation for the same sort of contribution that we will ask them to make as faculty members. They have the opportunity to learn first-hand that decision or policy-making is an anguished intellectual activity. For these reasons I strongly support student participation along with faculty on university working committees. When it comes to actual decision-making, then it is relevant to raise the question of accountability. This, in turn, would determine the relative roles of students and faculty.

At the University of Maryland we have moved toward student representation on the University Senate as well as student representation on all of the standing committees of the Graduate Council in addition to other specially established committees.

The standing committees of the Graduate Council are ten in number; collectively, they give attention to the complete spectrum of graduate school affairs. It is in these working Graduate Council committees that recommendations for procedural and policy changes are initiated. Students participate along with faculty in voice as well as in vote. This kind of representation by graduate students, together with a tie to an effective Graduate Student Organization, may provide a means to develop a cohesive unity to pursue a common objective.

W. W. Betts, Jr.

HERMES AND APOLLO

That most tireless of post-Elizabethan poetic voices, Mr. John Ciardi, has been overtaken in the poignant observation that "a university is what a college becomes when the faculty no longer cares about the students."

And the Vice-President Emeritus of the nation, upon his gracious, some would say belated, return to a campus more lively and more densely populated than that he had left twenty-five years before, has lately declared, "We *must* care about these students."

Is it possible, as we read, that at one of the most distinguished universities in the country, at the time of the notorious gymnasium exercises, there was no senate or single body in which the undergraduate faculty met regularly to consider policy of any kind? And is it true that at this same university the president of the student government association tried in vain for one and one-half years to secure an audience with the president of the university?

Is it also true, as we heard from the distinguished chairman of this present discussion in October a year ago, that a graduate student at the University of Michigan appeared one day in one of the graduate-level courses, ceremoniously laid out a piece of aluminum foil on the instructor's desk, took the textbook, poured kerosene on it, and burned it, and then handed out and read a prepared statement to the class to the effect that the class was illegal because the students had not chosen the textbook, the students had not developed the syllabus, and the students had not controlled the course?

Somewhere in between these regions of annoyed distrust lies the true university, and its building stone is *respect*. Mutual respect among its several members.

Typical is the expressed attitude of one high-school senior bound for college: "I'm going to Purdue because I have respect for it. If the college won't listen to me, then it doesn't respect me, and it's time for me to leave."

In an article entitled "And Whom Shall the Blind Lead?" Lewis B. May-hew, Professor of Education at Stanford, begins by asserting: "The claim that students should have a major role in actual academic governance is based upon a false premise and some misconceptions. The premise is that students can plan, with reasonable awareness of the outcomes, what is essentially a professional service that they receive from the college and university. The falseness of this premise can be illustrated by considering realistically whether or not freshman medical students have the background to plan courses in surgery, business students to plan their work in accounting, or students in the physical or biological sciences to plan sequences of work in physics or bioengineering." This is an argument we hear constantly: Does a graduate student in chemistry know as well as the chemistry faculty what the curriculum should contain? And we are all familiar, in these days of "relevance," with the story about the graduate student at the University of Pennsylvania who in the early forties declined disdainfully the opportunity to study uranium compounds. And to the cry for student participation, Jacques Barzun replies, "What have they as yet done to earn a voice?"

I appreciate adequately, I think, the point that this argument has, but I grow a little weary of hearing it as a sufficient cause to still the voice of the student. I don't believe that students want to plan the curriculum, choose the textbooks, appoint the faculty, or plan the buildings. What they do want, obviously, is a voice in these critical decisions. They want to be acknowledged, to be accorded some respect, to be taken into account in more ways than as numbers sitting in a classroom. And why shouldn't the faculty lend an ear? Surely if as faculty we are responsible enough to plan the proper programs, we can properly evaluate the worth of student thinking on these same programs.

There is also put forward the argument that the students in their desire to have a greater role in the governance of the university are concerned not so much with the health of the university as an institution but are concerned to use the university as an agent for political action. On this point, the desire-for-power claim, I would like to recall some remarks addressed to graduate school deans by Mr. Denis Hayes, a student at Stanford, in October of 1968. He said at that time that he was "advocating this student-faculty participation in ultimate decision-making authority not in terms of rights and privileges but rather in terms of the real contribution that I believe we can make. I urge such a course," he said, "not for political objectives but for the renewed health and vigor of institutions of higher education and, through them, of our society and the world."

The argument is also advanced that students are a very transient group and thus should have no part in determining the shape of an institution they will be leaving almost immediately. But even though the individual student spends only a few years at the university, the student body is perpetuated and is always one of the constituent parts of the university. Besides, there are such things as interested alumni; and universities have even been known to attach to their professional staff their own fresh graduates.

More telling are the arguments recently stated by the president of Yale University, Kingman Brewster. In taking a position against the broadening of decision-making powers, Brewster observed that most students were not enough interested in governance "to make it likely that 'participatory democracy' will be truly democratic," and he suggested that most students "would rather have the policies of the university directed by the faculty and administration than by their classmates." He insisted, further, that "inherently executive matters" could become paralyzed through a "quasi-legislative process," and argued that academic decisions could be best made by "people who are devoting their personal energies and risking their professional reputations, full time, for the best years of their lives, for the quality of the institution."

This brings us to the graduate student, who must be distinguished from the undergraduate and should also be distinguished from that post-baccalaureate person who from time to time enrolls in a course or two as a part of his continuing education. To what extent should the graduate student be given a voice in academic decision-making when (1) he is on the campus as a full-time student perhaps no more than a year, when (2) he has on many campuses little opportunity to assemble with his fellow graduate students and thus can hardly be considered a genuine representative, and when (3) he is immersed, normally much more so than the undergraduate, in the study of cosmic rays or the metaphysical imagery of John Donne?

I think we should remember that this graduate student often is a teaching assistant or research assistant, that as such he is properly considered a member of the faculty and sometimes even receives faculty parking privileges. Besides, studies have shown that graduate students are very nearly of an age with the faculty. And studies of the activist students at Columbia, Berkeley, and Harvard show them to be generally of superior intellectual ability and achievement. In short, the distinctions that we sometimes like to make between graduate students and faculty are easily blurred.

It seems to me that the faculty are the center of the university. I believe, probably with most of us here, that it is the function of the administrative officers to carry out the programs that the faculty want, to find a way to make it possible and pleasant for the faculty to teach what and how it wants. At the same time, I believe that the faculty in determining what to teach and how cannot but benefit from the studied counsel of students, who are the most vitally concerned, and administrative officers, who were good teachers once.

A study conducted by Miss Ann Heiss[1] reveals that 30 per cent of the 3,500 doctoral students consulted reported that they had been instrumental in effecting changes in their graduate programs or in their institutions' policies with respect to graduate students. And 89 per cent of these reported that the changes had been accomplished through regular, well-established channels.

There is a good bit of evidence to suggest that student concerns will be more and more with academic policy, with the nature of the curriculum, the quality of teaching, the depersonalization of education.

President Homer Babbidge, of the University of Connecticut, has urged colleges and universities to channel the critical energies of the students toward the question "How is a university best governed?" He predicts that "direct student challenge of the authority of faculties to make the academic ground rules in higher education will be the next step in student agitation."

And Donald Bowles, Academic Dean of the American University, here in Washington, D. C., has declared: "As academic questions go, it seems unusually clear that greater student participation, as well as faculty participation, in the academic governance of a college or university should be regarded . . . as inevitable."

Jerome Skolnick, writing in *The Politics of Protest,* also predicts the increased participation of students in university decision-making and policy-making: "The inclusion of students in campus policy-making is a recognition that formal political means are necessary to provide adequate representation. It is neither realistic nor justifiable to expect contemporary students to remain content as second-class citizens with the university. When the university was less important, both in terms of its social and political significance and in terms of its decisive influence on the student's life-chances, such representation was correspondingly less critical. Today the university —like other large social institutions—commands such critical importance in those areas that it has in effect made of students a new kind of group with new kinds of legitimate interests, and it must revise its structure of representation accordingly."

What is the present situation? The faculty, research studies have shown, are generally favorably inclined toward student participation in the formulation of social regulations but are generally reluctant to grant students a similar role in the academic policy-making.[2] Although only 4 per cent of the faculty, according to one study (Wilson and Gaff), declared that students should play no role in formulating academic policies, it is apparent that professors are reluctant to share their academic power. Only 9 percent, for example, are willing to grant students an equal vote with the faculty.

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[1] Ann Heiss, "Today's Graduate Student—Tomorrow's Faculty Member," *The Research Reporter,* Vol IV, No. 2 (1969), 5–7.

[2] Robert G. Wilson and Jerry G. Gaff, "Student Voice—Faculty Response," *The Research Reporter,* IV, No. 2 (1969), 1–4.

W. Donald Bowles, "Student Participation in Academic Governance," *Educational Record,* XLIX (1968), 257–262.

Ann M. Heiss, *op. cit.*

All of us are familiar with the report returned to the House of Representatives in June of this year by the Honorable W. E. Brock of Tennessee and his committee. The twenty-two Congressmen who toured the colleges and universities had this to say: "On campus after campus we found widespread criticism from students who feel unable to communicate with administrators and faculty. They believe that no adequate channel is open to them to make their views known. Channels that do exist provide only limited access to individuals who will take responsibility for major decisions."

Also, in June of this year, the American Council of Education announced its intention to establish a Special Committee on Campus Disruption (not the most palatable of titles), whose job it would be to propose ways to strengthen procedures of self-regulation by colleges and universities. "This committee will focus," the Council explained, "on more effective decision-making, appropriate means of presenting grievances and proposing changes . . ." And then, in August, the Council announced the appointment of a Special Committee on Campus Tensions (a very slight improvement in title). As it happens, this is a most distinguished committee. It is composed of nineteen very able people, including three students (Joseph Rhodes, a graduate student at the University of Massachusetts; Patrick Shea, student council president at Stanford University; and Richard von Ende, a graduate student at the University of Kansas). And it is headed by Sol Linowitz, recently the American ambassador to the Organization of American States and presently a trustee for Cornell University, Hamilton College, and the Consortium of Washington, D. C. universities. We are to have a report from this committee in April.

Much depends, of course, on the stand we take on the real fundamentals. What is graduate education for? Is it, as some maintain, to help the student attain self-knowledge and personal identity? Or is it, as others insist, to help the student acquire an understanding and mastery of some specialized body of knowledge?

More fundamental still is the idea of a university. We don't appear to be agreed on what the university is, or should be. (Read Clark Kerr and Jacques Barzun.) It has even been suggested that the professors are running universities for different reasons than the students attend them.

We have some special problems in graduate work, and I think the biggest need is to preserve and extend the intimacy between professor and student and the next, if it is not the same, is to humanize the doctoral program. Of those receiving the Ph.D. degree in English recently, 70 per cent (see Don

Cameron Allen, *The Ph.D. in English and American Literature*) reported real dissatisfaction with some phase of the program. And these people are all members of teaching faculties now.

Permit me some observations and recommendations based on the foregoing: (1) Life would be much easier if we did not have students cluttering up our campuses. They are a nuisance, and I am sure that we could all get on very well without them. It is easy to agree again with Hubert Humphrey, who, while he can spin a neat, fresh figure, is not above an occasional cliché, that these "patriots of dissent" do "sometimes . . . produce more heat than light." (2) But we cannot take students for granted or cannot, as members of my freshman composition class keep insisting, take them "for granite." (3) The old swallow-the-goldfish days that some of us remember are down the drain. And the goldfish die as speedily in the water as out. The student concerns now are, rightly, the Viet-Nam war, nuclear testing, automation, human relations, poverty, the draft and ROTC, super technology, air and water pollution, and the depersonalization of education. (4) Confidence in the present value system of our society has been sorely shaken; and the university, which to many clearly reflects and nourishes these values, is naturally the chief target of the disillusioned. (5) Students are crying out against meaningless courses for the graduate degree, against any degree that requires the study of irrelevancies. (6) There is some danger that large numbers of students will simply "cop out," withdraw into a kind of privatism. (7) Students, if they are to have a voice in academic policy, should be representatives, not merely self-interested delegates.

Halton Arp, in his remarks on "The Need for a New Kind of Academic Responsibility" (*AAUP Bulletin* for September, 1969), insists that there be student participation in policy-making decisions of the university. "The students undeniably," he asserts, "bring energy and social morality into the picture. The latter I suspect they have because they have freshly learned the ideals of generations past and have not yet been dulled by years of compromise. They also have a legitimate claim to share in decisions because, while the university is a small percentage of a trustee's life and perhaps 50 percent of the life of the faculty and administration, it is nearly 100 percent of a student's life, and his home as well, for four, six, or sometimes more years."

The ferment that characterizes almost every college and university campus in the country is regarded by the more thoughtful educators as a constructive force that will effect wholesome reforms in our educational system. Dean Lawson Crowe has put it well: ". . . the better things are understood by the students, the more fruitful our work will be and the more success we will have in promoting higher education in this country. I see very little to be lost and a great deal to be gained from letting students in on what is going on."

For these considerations, I am recommending that students undergraduate and graduate alike, be given a real voice in the administration of university affairs, including academic decision-making. I am recommending it, not because students are now demanding such a voice, but because it is an obligation that they should have assumed long, long ago, even before the time when the hoary-headed deans here assembled were earnest undergraduates.

E. S. Carter

PLANNING STUDENTS' ROLES IN EMERGING UNIVERSITIES

INTRODUCTION

During the academic year 1970–71, we may imagine, several graduate deans representing emerging universities, hereafter called emerging deans, decided to collaborate in the interest of introducing a fresh point of view. Their sense of urgency may have been related to the fact that all of these deans worked at universities in urban settings where the working out of suitable roles for graduate students in academic decision-making had been recognized as a problem—or should it be called an opportunity?—of unsurpassed importance.

Seeking a fresh point of view, these deans asked the Council of Graduate Schools for support in securing the services of an experienced consultant with unexcelled appreciation of education in general and the importance of graduate education in particular. He had to be young in spirit, the deans said, yet older in knowledge and wisdom; he had to be perceptive in the diagnosis of ailments in complex organizations, sensitive to the subtleties of intercultural relations, and competent in detecting the practical implications of emerging trends and styles of leadership. But he was not to be another graduate dean, nor an ex-president, even if he had established a consulting firm; for a fresh point of view, they wanted an outsider instead of anyone in education. With qualifications such as these in mind, the Council of Graduate Schools considered dozens of candidates and interviewed seven. Among these seven, a recently retired member of the British diplomatic service was found. He was living in the United States, where three of his grandchildren were enrolled in three different graduate schools. The fact was discovered that he had been reading faithfully *The Chronicle of Higher Education,* had been following the feature articles on higher education in the *Christian Science Monitor,* had subscribed to *College Manage-*

ment, had been making, on his own initiative, a special study of changes in graduate education and research. He was particularly interested in emerging universities because his three grandchildren were earning graduate degrees in such institutions. His diplomatic career had been crowded with various assignments in emerging nations where high priority had been assigned to the development of educational opportunities.

A twelve-month contract with Mr. Whately was negotiated by the Council on behalf of the emerging deans. The funds were provided by a most benevolent foundation.

(At this point comes the disclaimer. Before I disclose anything about how Mr. Whately approached his consulting assignment and then characterize his report, I must confess that Whately is not a pseudonym for Carter. Whately is the fictitious character. Although I was stationed in England, and I admit to more than a dozen years of part-time consulting with an information systems company working under contracts with the Department of Defense, I have never been a diplomat. Nevertheless, the encouragement to imagine what Mr. Whately might do and say came from remembering the few diplomats I have met and the many diplomatic people I have been privileged to work with. Mr. Whately started his consulting work in April, 1970, and submitted his report one year later; so it *must* be imaginary. How fresh his point of view turns out to be remains to be seen, but certainly we should not expect too much. We are not trying to imagine the counsel of a prophet but only the viewpoint of an imported consultant.)

The Consultant's Approach

Mr. Whately found himself unable to resist the temptation to compare emerging universities with emerging nations. In spite of the great and obvious differences, he thought about certain similarities between universities and nations as organizations. Both could be studied as cultural organizations, each containing subcultures engaged with one another in the making of evolutionary—occasionally revolutionary—changes. Although each of the various groups had established strong vested interests, the groups belonging to the older generation were labeled and treated by younger citizens as the establishment.

In both organizations, certain kinds of *relationships* among subcultural groups seemed to emerge *invariably.* One found not only disadvantaged individuals but also claims and demands made in the name of disadvantaged groups. In spite of the fact that some of the individuals in these groups came from affluent backgrounds, they identified themselves with restless, vocal, and occasionally militant minorities. Other individuals joined forces with the moderate majority. Others exercised their independence. Both minorities and majorities tended to emphasize the disadvantages of their relative status. It is the comparison and contrast of relative status that invariably occurred, so far as Mr. Whately knew. Thus he anticipated that groups of students, in searching for their own identities, would be found engaged in the process of trying to ascertain their status in relation to the status of others, including administrators and faculty groups. He wondered about the extent to which the general pattern of establishing faculty power through organizations such as the American Federation of Teachers, the A.A.U.P., and faculty senates might be a pattern of history currently being replicated by student groups. Knowing that in a few instances graduate teaching assistants had unionized, that student senates and graduate student associations were becoming more active in power struggles, Mr. Whately was inclined to pursue the apparent similarity. In a larger context, it occurred to him that emerging universities—in search of their institutional identity—might be viewing themselves as relatively disadvantaged in comparison with the more established institutions. If status comparisons such as these *invariably* occurred on all levels of organization in both emerging nations and emerging universities, then, Mr. Whately reasoned, those characteristics invariably found among inter-group relationships would provide a basis for determining current trends and forecasting the nature of future developments. Furthermore, any diplomat knows that estimating future developments on the basis of invariant relationships is much safer than estimating on the basis of variance. Predictability is a function of the level of abstraction, and the various happenings on various campuses at various times in various settings are more specific than predictable. Yet the discovery of *patterns* of relationships among various happenings might well serve a basic need for planning students' roles.

We could not understand Mr. Whately's approach to his consulting assignment without knowing something else about his orientation. Being familiar with military intelligence and having been deeply involved in diplomatic intelligence, Mr. Whately experienced an overwhelming curiosity concerning the amount and the presumed accuracy of information currently available about interrelationships among groups of people involved with one another in emerging universities. He wanted to find out what each of these groups had learned about themselves and about one another. Inasmuch as he was trying to *estimate* the future situation for planning purposes—which is comparable indeed to the missions of diplomatic intelligence—he prepared himself for a series of one-week visits to a dozen fairly typical emerging universities where he planned to interview at each institution a generous sample of graduate students, graduate faculty members, deans (including but not limited to graduate deans), and the president. He prepared a set of open-ended questions for everyone in his sample with primary emphasis on relationships between students and faculty. He formulated questions for graduate students concerning how they felt about the faculty, and he asked faculty members how they felt about graduate students. After making preliminary, on-the-spot comparisons between these two sets of responses, he asked administrators how they felt about the feelings of faculty and students toward each other. Such was the characteristic emphasis of his questioning. Even more important, Mr. Whately resolved to practice in his interviewing everything he had learned as an observer and listener. He aimed to be perceived as the exact opposite of an agent engaged in espionage activities.

Mr. Whately's Report Characterized

Mr. Whately learned that, in spite of his thoughtful preparation and his consummate skill in communication, the kind of information he wanted most was most difficult to secure. On his first try, from nearly half of the respondents, his questions about feelings yielded some answers about thinking; his questions about particulars yielded some answers about generalities; his questions about qualities yielded some quantitative answers; his questions about groups and relationships among groups yielded not only some answers about stereotypes but also projections of blame such as, "*We* have made reasonable proposals, but *they* don't understand us."

Mostly from his sample of graduate students, Mr. Whately drew the conclusion that students in general and their elected leaders in particular were aware that administrators usually take the lead in extending student participation in academic decision-making more than the moderate student groups try to do and much more than the typical faculty senate does. Recognizing that the faculty was most resistant to extending student participation—especially resistant where students have only a voice or minority voting rights—the moderate students were fearful that no one was really listening to them. The faculty, with few exceptions, were perceived as preoccupied with consulting, researching, and publishing instead of teaching and advising. A majority of the students felt that this was a trend that was running against them; but a minority were hopeful that this trend was slowing down and possibly could be reversed, eventually, in some but not all of the emerging universities.

Mr. Whately reported that he was unable to find among the patterns of responses any area of academic decision-making in which the students felt nearly as incompetent as the faculty would have them believe they were. Students felt that the faculty perceived them as transients who were not yet educated; but students felt about themselves that they were a most important component in the academic community. Students felt sure that no one else was in any position comparable to their own to evaluate teaching. The faculty evaluated student performance, and the students expressed the attitude that sauce for the goose is sauce for the gander. It may be an extension of this attitude that encouraged students to secure more power for themselves, especially at the very point of the greatest struggle against the faculty, namely, in the making of hiring, firing, and tenure decisions. Influential student groups clearly expressed a lack of trust on the part of both administrators and faculty because both were perceived by students as not trusting students. This lack of mutual trust was a sign of inadequate communication as well as a conflict of behavioral norms and deep-seated values. The achievement, if not the restoration, of mutual trust by means of communication and both the further extension and the refinement of opportunities for all groups to cooperate was fundamental and probably urgent.

Mostly by faculty respondents, Mr. Whately was reminded that over half of the one hundred and twenty schools in the American Association of State Colleges and Universities had made arrangements for students to serve on committees from which they were previously excluded. With distinctions drawn between having a voice and having a vote, faculty members reported that student representatives had been given opportunities to participate in the making of admissions policy; in the determination of curricula; in evaluating faculty performance; in decisions of hiring, firing or tenure; in selecting presidents or chancellors; and students had elected representatives to serve on boards of trustees. When Mr. Whately asked faculty members how they felt about these kinds of roles for students, he found a polarization of differences. A minority of those interviewed expressed themselves as if they were self-appointed champions of the students' presumed cause. More often than not, the cause was presumed for all graduate students as if a single category were sufficient. A majority of the faculty members interviewed apparently felt threatened by the expansion of student power as evidenced by resistance, by the formation of alliances and cliques, and by the relative frequency of compromises. The frequency of votes taken with narrow margins exceeded the frequency of consensus and subsequent collaboration. Nevertheless, the compromises did show signs of evolving from the exclusion of students toward more opportunities to participate. In most of the universities sampled, the students had already achieved self-determination in personal, social and extra-curricular affairs, and what remained in question was mostly extensions beyond these areas into academic affairs and governance.

When confronted with the differences between student and faculty groups, the emerging deans were neither greatly surprised nor completely cognizant. When Mr. Whately asked them about student-faculty relationships, most of the deans expressed mixed feelings. In the mix, Mr. Whately found evidence of some anxiety, much frustration, a little resignation, and a preponderance of cautious optimism.

Included in Mr. Whately's report were the following observations for consideration by emerging deans:

1. Carefully selected representatives of moderate student groups may be more influential in making changes than any other single group. One case in point is the radical change in curriculum that was spearheaded by students at Brown University.

2. Selecting student representatives is a critical step. Those most anxious to represent their peers are not necessarily the ones who will take the time and assume the responsibility of participating sufficiently and effectively. One approach to selection is a two-step operation: an appropriate, representative student organization nominates candidates for appointment by the dean or recommendation to the University Senate by its Committee on Committees.

3. A relatively neglected function for students is long-range academic planning. To be avoided at all cost is planning *for* students rather than *with* them. Planning *with* students in behalf of future students can foster communication, cooperation, and self-motivated learning; for the student's concern for relevance can have a salutary influence if the administrators and faculty do not try to use students and thus alienate them, but treat them instead as human beings with a stake in their own destinies.

4. Don't be surprised to find students who want neither the opportunity to take over nor the responsibilities of running the whole show. Even if they did, they could not do so unless the other groups abdicate their own responsibilities.

Darlene Roth

GRADUATE STUDENTS AND ACADEMIC AFFAIRS

Since I am the only student on this panel and since we are discussing the role of students as well as faculty in academic decision-making, it is a temptation to use this occasion to submit to you the proverbial list of demands and await your reaction. However, I do not like confrontations when I am outnumbered, so you will get no list of demands. Besides, several other things make such a stance difficult. I don't feel I can legitimately represent graduate students as a whole; I don't perceive any viable constituency there to represent. Further, I am only a half-breed. In addition to being a graduate student, for a number of years now I have been a member of the graduate dean's staff at my university. But my own situation is good proof of the testimony I wish to present. I have not had recourse to petitions or pickets or demonstrations to gain the influence sought by so many students today; I have simply infiltrated the ranks.

However, as I am the only student on this panel, I wish to restrict my remarks to the situation of the graduate student *vis-a-vis* academic affairs. My two loyalties—as a student and as an administrative type—give me something of a double vision here, a vision that I hope is more three-dimensional than astigmatic.

To begin with, whether graduate students should participate in the academic decision-making processes of the university is not a moot question, if it ever was. Their participation is not only desirable, it is necessary and inevitable. The events on campuses across the country since 1964 can only lead to this conclusion. The student-power movement has gathered momentum in the last half-decade, and it has been successful. It has led to new forms of student government, new kinds of student representation—on campus committees, academic senates, and even boards of trustees. Most importantly, it has led to curriculum reform—on the undergraduate level particularly. That momentum has now reached the doors of the graduate schools. I do not mean to indicate that students alone can take the full responsibility, or blame, for these changes. It is difficult, though, to ignore the pressure they have applied to the academic structure, and it is ridiculous to deny a cause and effect relationship between that pressure and the current structural creaks and groans being heard across the nation. I do mean to indicate that the momentum that has been having its greatest effects on the undergraduate level is carrying over into the graduate schools.

In some cases students now reaching graduate schools have had four years of experience—or training, if you will—in dealings in academic power struggles. These students are not dismissing graduate education on grounds of irrelevancy. They are not all dropping out; hardly, they are flocking to graduate schools. You know; you've all looked at the growth figures. I am not specifically referring to hanger-on radicals who simply want to continue their activities in the various university undergrounds. Nor am I going to insist that there is some "silent majority" of students we just haven't heard from yet but will. I am referring to the great bulk of students whose consciousness of the institution of higher education itself has been awakened; all the ones who have been affected (or infected) by the so-called liberation activities. There are thousands of them. To them, graduate education has ceased to be a privilege for the few; like other things, it is being reckoned as a right—the right for the many to have that advanced, specialized, and professional training in all fields and the right to be awarded something besides a "worthless" degree. These students care; they want challenges; they want action; they want commitment. Most of all they want involvement in a community that is at least partially their own creation.

The popular contentions will remain. The issue-oriented social conscience of today's students cannot be expected to dissipate soon, nor can it ever be expected to dissipate merely by association with the wormy books, the tradition-ridden hurdles, and the elusive professors for which graduate education is so noted. These students will continue to argue that the university should take a stand on Viet Nam, foster civil rights, that it should repair the ghettoes and eliminate urban blight, allow pot, and so on. This social fervor will find fertile soil in graduate education for gutsy academic arguments. The nature of graduate education itself will provoke them. The movement, if it can be called that, is insisting on new criteria for educational professionalism itself. It pits a new numbers game against the old one. You know the old one; it counts publications and professional society memberships to rank its participants. The new numbers game simply counts people. It talks about the quality of teaching, about service to schools and community, and about something that might be termed colleagueship between faculty and students. This is what the graduate schools must face: a new game and a new student body—larger and more public spirited, with more activists, more representative from minority groups, more late-bloomers, a great number of the middle level C plus—B minus type of student, a few committed scholars, and a lot of stubborn kids. Students they are, at any rate, who are severely critical, indeed, even unsympathetic, with our little closed corporation.

I am talking about graduate students in particular and not students in general for the simple reason that graduate students are a breed apart. Theirs is a betwixt-and-between world. And, it's a weary world—full of large demands and small rewards, where study goes on from dusk to dawn and seminars go from yawn to yawn. The graduate student is not a full-fledged member of the normal collegiate student body, certainly not of the faculty. If he is a teaching fellow, he has feet on both sides of the doorway. If he is employed outside, he suffers the debilitating effects of a dual existence and a conflict of interests. If not employed, he usually retreats as a library mouse or advocates undergraduate causes. Personally suspended between the good old carefree days and the responsibilities of an unknown future, his lot has all the difficulties and all the irresolution of an eternal present. He is not his own master. Normally, he is timid and afraid to confront the powers over him. Of course. At the mercy of the academic department, he seldom will wish to complicate his life or endanger his academic existency by intimidation or distrust. He is bored and discontented, and his boredom and discontent make him part of the most potentially explosive group on campus.

Thank goodness, the situation is changing. The revitalization of graduate student organizations, for example, is correcting some of the apathy. Unionization even is occurring on some campuses. These groups are increasing communication and concern among the student. After all, associationalism is a fine old American tradition to build community. It hasn't been too successful in the past among graduate students, but it remains to be seen how the current wave will turn out. Although most graduate student groups, departmental or otherwise, lie outside the organizational structure of the university, they do help to ease the difficulties of a nonentity existence. There would be further success in abating discontent if more graduate students were brought within the regular channels of activity. By associating the students closer to itself, the university could take a sizable step toward correcting student ignorance and diverting student antipathy.

The trouble on the graduate level—as at all levels really—is that a graduate school operates in a system of perpetual divisiveness. I am referring of course to the compartmentalization of subjects and specializations. The departmental structure is so central to graduate education that no student, unless blessed by an enormous curiosity, ever gets a whole picture of the institution to which he belongs. The faculty don't have that picture, so how could the students? A worse offense is that the students are seldom taught anything about the relationship of their own field to other fields. One suspects this is because the faculty don't themsleves know what the relationships are. I hate to think that fragmentation and narrowness can only beget the children of themselves and that generations of academics will be doomed to mutual unintelligibility.

There is this undeniable and serious educational void, and it is created by the faculty. I am not going to dredge up that old tired argument about teaching and research. There is no debate. Research has taken precedence. The entire academic reward system promotes this, and I've never heard anyone deny it. With regard to research, consulting, whatever the activity—suffice it to say that what time the faculty spend doing one thing, it obviously cannot spend doing something else. The manifestations of this problem are all too familiar. Classes are taught with minimal, sometimes no, preparation; office hours are few or are missed altogether; theses get prepared with little direction and only cursory review. And so on and so on and so on. Students, with too few exceptions, are not getting the instruction they have paid for and have a right to expect. Under any concept of university this is an injustice.

The scholastic tradition, reinforced by professional associationalism, has had several unhappy consequences. As I have mentioned, the main job of the university, that is, teaching, has suffered severely. An academic league has been created whose members hold loyalties to everything but the home university—sometimes, I would say, to everything but higher education as a whole. The university to an embarrassing extent has lost the allegiance of its major constituency and erstwhile governing body. And the great advances in knowledge made by that same body have been turned outward and have yet to be applied to higher education. Only now is the university the serious subject of its own study.

I am not about to suggest that graduate students fill that void. They shouldn't; they can't. But I do have a few suggestions how graduate students could be used to breach some gaps.

Graduate students are a natural bridge, in age and in experience, between the undergraduates and the faculty. As such, they make excellent undergraduate counselors. I have seen a system at one university where all freshmen and sophomores are academically advised by a network of graduate counselors. It's a paying position, like a fellowship. The students love it, the deans love it, and it works beautifully—almost entirely without problems. More of this kind of thing should be done. Counseling is one of those para-academic jobs that grows as the university grows. The faculty can't do it alone.

This is an obvious function, and so is the next one I wish to mention—criticism. Graduate students are highly critical, but they usually never open their mouths about academic matters or university affairs until after they graduate or drop out or until after they receive their first request for donations. New generations of students will doubtless not remain so quiet and passive, and channels for their criticism should be created. The graduate students should be used for effective evaluations; at the moment most are not. In fact, they are not really required to think critically of the whole educational process—its framework, its history, its personnel, or its goals. Many steps in this direction could be taken, and it will be the chief job of the graduate dean to lead the march. He is already the arbiter between graduate students and faculty, and there is no reason to suspect that this function will not increase. He may, in fact, end up as a super-ombudsman for graduate student affairs. Other things could be done. Graduate students could serve on established university committees; they could serve on advisory councils under departmental or deans' jurisdiction. They could be hired for other posts besides teaching and cleaning test tubes—as administrative aides to departments or in other offices on campus. Curriculum and admissions committees, generally speaking, could use the point of view, not to mention the man-hours, graduate students could contribute.

This kind of involvement is particularly important for those students who plan to teach. They should be prepared to teach but should also have available to them such trimmings as supervision, curriculum planning, and participation in departmental activities. A good many graduate students are future faculty members; they are not just temporary cheap labor.

The few simple things I have described are not really new or avant-garde ideas. Universities across the country are experimenting with just such activities. Most experiments, however, are still in their infancy. Moreover, some are marked by haphazard planning and have all the appearances of academic "happenings" rather than programs.

It has often been said that the real test of an institution lies in its ability to meet and incorporate change. Higher education is no exception. Despite the present mobility of faculty, the students are still the major transient faction at a university. They bring change with them, and they keep it coming. Their turnover fosters new ideas much more quickly than they might otherwise appear. Why must universities wait for pressure from the outside to react to things the students have been saying for years? And why can't students be recognized for and responsibly charged within the institutions with a function that is so automatically theirs? The only answer to that, and it's a damning one to my mind, is fear.

One final comment. According to a simple law of physics, sufficient pressure applied to any substance will alter that substance—perhaps unrecognizably. The parallel here is clear. During the 1960's education has become everybody's business, and everybody is exerting overt pressure. We can sit back and watch the structure change, or we can exert our own efforts to direct the course of that change. The university *will* change—with, or without our help.

Fourth Plenary Session: Inter- and Transdisciplinary Programs

Friday, December 5, 2:00 p.m.

PRESIDING: Mina Rees, *Chairman-Elect, Council of Graduate Schools*

Daniel Alpert, *University of Illinois*
Bryce Crawford, *University of Minnesota*
Leigh Secrest, *Texas Christian University*
S. Aronoff, *Boston College*

Daniel Alpert

THE ROLE AND STRUCTURE OF INTERDISCIPLINARY AND MULTIDISCIPLINARY RESEARCH CENTERS

Since World War II the interdepartmental center has become a marked feature of the university landscape. In a typical graduate college catalogue there are references to dozens of different institutes, centers, and laboratories that cut across the usual departmental and college lines. We have institutes for Asian, medieval, psycholinguistic, or Afro-American studies; we have laboratories for survey research, electron microscopy, or materials research; we have centers for computer-based education, space science, and environmental science. Based on the catalogues and brochures, it would seem that interdepartmental or cross-departmental organizations were well established within the university framework.

However, when we ask knowledgeable people about the productivity or institutional value of such efforts, we get very mixed reactions; appraisals usually range from "qualified success" to "unqualified failure." Only a very small number of such centers have become truly distinguished focal points for interdisciplinary activities. It is the objective of this paper to make some observations concerning the differing functions of such centers, which I believe necessary to provide a framework for the discussion of their structure and governance.

I think it is essential at the outset to recognize that the educational objectives and institutional functions of various centers may be radically different from each other and are typically very different from those for departments. To clarify this situation, we should distinguish between at least three different categories of organizations, and I propose to use different semantic labels to sharpen this distinction.

I will not discuss in detail a possible fourth category that has grown up on some campuses, the one-man center, set up to accommodate an individualistic staff member who, whatever his other qualifications, typically has unique entrepreneurial skills in Washington. This "center," for the academic fish who is simply too big to fit into any departmental pond, may have value, but it is too specialized for further consideration here.

The first general category of activities, which I will somewhat arbitrarily label "cross-disciplinary," is that in which a new field of graduate research develops in the overlapping territory between two or more adjacent disciplines, for example, biology and chemistry, or geology and physics. Cross-disciplinary laboratories are typically initiated by researchers with problems posed by one discipline seeking new methodologies or solutions, that is, methodologies from another discipline, or persons with novel solutions seeking a new set of problems, that is, problems posed by another discipline. If a significant program of cross-disciplinary research activities develops, such laboratories can be effectively incorporated into new departments such as biochemistry, geophysics, psycholinguistics, or bio-engineering. Such cross-disciplinary efforts then become the new disciplines—indeed this is the way many of the more recently formed departments have been established.

Most of my discussion today will be devoted to the governance of two classes of centers that are quite different from departments—these are multidisciplinary centers and interdisciplinary centers. While a sharp distinction between these terms is not conventionally made, I believe it is useful to use different labels to distinguish between two very different types of activities. I propose the term "multidisciplinary" to describe a center or laboratory in which individual scholars from different disciplines (or departments) share common facilities, common research approaches, or a common environment. Sometimes all they share in common is a sales pitch or a joint search for federal funds. As one example of a center fulfilling a real university need, a multidisciplinary materials research laboratory may include metallurgists, solid-state physicists, or solid-state chemists whose work is benefited by sharing experimental facilities as well as a congenial intellectual environment. As another example of a multidisciplinary program, specialists in Oriental history, economics, or sociology may participate in a center for Asian research, in which a key feature is an Asian library collection. It is important to note that in either of these examples the problems tackled by a given scientist or scholar typically do *not* require the participation of others in reaching a solution; the individual researcher benefits from the shared intellectual environment, the joint funding or common physical facilities, but he works on problems posed by his own discipline.

An interdisciplinary center, as I will use the term, has as its prime focus the consideration of problems that call for the insights of experts in a number of disciplines and demands an interactive joint effort to reach a solution. The problem is posed by society, not by the discipline. It is the *problem* that determines the selection of the personnel involved in a given project. If the problem is a complex one, the approach to a solution requires teams of designers, engineers, or scientists from different fields of specialization. At a laboratory with which I am familiar at the University of Illinois, we tackled such problems as the design of a navigation system, an air-traffic-control system, and a computer-based education system. For each systems project, a different set of disciplinary backgrounds or skills was called for and a group of professionals assembled, typically under the guidance or leadership of a project head.

It is interesting to contrast the relationships with graduate students in these different environments. In the multidisciplinary laboratory, the student is assigned to a given professor (or vice versa) and relates to him as he would in his department; the problems are those considered currently valid in the discipline. In an interdisciplinary effort, on the other hand, the student selects, or is assigned, a problem in the context of a much larger group objective. He may become a key member of the group even before he writes his thesis, and in the process he may relate to several senior staff members from different departments. It is easy for such a student to see the relevance of his work; from an educational viewpoint, it is often necessary for his thesis advisor to protect him from too heavy an involvement and to assure that a valid thesis emerges.

The administration of these two types of centers obviously calls for different skills, different procedures for decision-making, and different reward systems. In the case of a multidisciplinary center or facility, a principal objective is to serve a group of previously selected departments. Hence, an important role in governance may be delegated to a representative interdepartmental committee, representative, that is, of the departmental clients. The center director may act as chairman of such a committee, and often does. By seeing to it that all clients are adequately served, he may effectively carry out his prime function as coordinator and spokesman.

By contrast, the key administrative challenge in an interdisciplinary effort is the assembly of a group of people who can relate effectively to a problem and to each other. This involves a delicate and skillful selection process, and one in which commitments may be subject to later change. As opposed to the situation in multidisciplinary laboratories, one often cannot predict which departments may be involved, even when it is clear what fields of disciplinary expertise are needed. If no one in the relevant department is motivated or qualified to contribute to the interdisciplinary effort, the program leader may have to look elsewhere for participants or even to learn the elements of the missing discipline himself. The motivation for taking part in an interdisciplinary effort differs substantially from that for a traditional departmental program or multidisciplinary laboratory. A problem-solving effort is primarily addressed not inwardly toward a participant's professional standing in his discipline but outwardly to the successful design of solutions to his problem. For all of these reasons, it should be clear that the administrative task is different; it calls for leadership rather than coordination, and it is not substantially motivated by the disciplinary reward system so deeply ingrained in the academic scene.

From the above remarks it should be apparent why the academic community has found it much easier to understand and to administer the multidisciplinary facility; in the final analysis, its major function is to *serve* the existing disciplines and departments.

It should also be apparent why existing university structures have in recent years met with relatively little success in developing strong interdisciplinary efforts. Since the initiative for new programs is typically vested in departments, there have been relatively few efforts to assemble such groups, to provide them with laboratory facilities, or to assist them with the professional nonprofessorial staffs essential to such an enterprise.

I do not want to imply that the university has no experience in this area. The interdisciplinary activities established in the early days of the colleges of agriculture were organized in departments—for example, departments of dairy science, animal science, and food science. Some have suggested that we follow the agricultural college pattern of using the college and departmental organization itself to serve this interdisciplinary function. In principle this could be done, in, let us say, a College of Environmental Control, a College of Urban Studies, a College of Water Resources, and so forth. Unfortunately, the increasingly complex problems of today call for knowledgeability in most of the existing disciplines; it seems questionable whether such new colleges could be established in the face of limited university resources and existing departmental attitudes. If we were to set up a new college to deal with each new problem as it arises, we would have to develop a type of flexibility that universities have thus far not demonstrated. It seems far more likely to address society's problems within the context of existing colleges and departments.

However, if we are to address today's problems within our existing framework, we need interdisciplinary centers in which certain critical conditions are met. We need an environment in which faculty members and students may commit themselves to a joint interdisciplinary effort without making a permanent organizational commitment. We need a university administrative structure in which the interdisciplinary center and a variety of departments may pursue very different objectives with interim joint appointments but without subordination of one administrative structure to the other. We need to develop institutional mechanisms for the selection and reward of a new breed of professional academic staff member, one who is not only willing but *able* to assume leadership roles for interdisciplinary programs and centers.

If there is one overriding staff requirement in an interdisciplinary effort, it is that *there be at least one person in a leadership role* who is an *interdisciplinary* person. And we must recognize that the academic community in its traditional time-honored mold has not addressed itself to the training or education of the interdisciplinary man. A recognized scholar who has devoted his life's career to selecting and solving problems that are tractable by the methods of a single discipline has probably been getting *negative* experience for addressing problems that in their usual context are either intractable or only partially susceptible to such methods of attack.

If we want true interdisciplinary leaders on our campus, we need a new set of procedures by which to select them, a new set of standards by which to judge them, and a new set of criteria by which to reward them. Under existing structures, we often have no mechanism for hiring such a person if we find one! In most departments, a Charles Hitch, a John Gardner, or a John Lindsay would not have the appropriate credentials to be considered an acceptable candidate for a tenure position.

How can we provide a structure in which departments and interdisciplinary centers can be compatible? It seems to me that the department should, by and large, be considered the instructional and degree-granting academic unit of the university, while the responsibility and authority for building a problem-oriented team should reside within the interdisciplinary center. A member of the academic staff of an interdisciplinary laboratory should typically have an appointment, let us call it a tenure appointment, in one of the academic departments. Typically he should *not* have established tenure within the laboratory.

As to the decision-making process within the laboratory, it should best be made in a framework of accountability rather than participatory democracy. I am here using Kingman Brewster's use of the terms; the notion of accountability is particularly applicable to the role of director of an interdisciplinary laboratory. Such a director must clearly have the confidence of the people within his laboratory, and he must play a role that is ultimately accountable to them as well as to their departments. The interdisciplinary administrator depends on his ability to lead and not on his vested authority, since any academic member of his laboratory should always have the graceful option of returning to his tenure department. However, there are few better ways to assure failure than to subject the director's decisions to veto by a representative committee. Needless to say, this is a completely different administrative environment from the one typically found in a department.

In a departmental structure, when we recruit a young man to a given discipline, we assume that his professional research interests will parallel those of the department for forty years. All too often, a true interdisciplinary person will have professional interests that never parallel the program of any one department. Hence, the entire concept of tenure, either for the laboratory director or for the key leadership within the program, must be reconsidered. It may be necessary to establish a new category of academic personnel. One proposition that deserves serious consideration is the concept of an *all-university professor without tenure*. The appointment of such a person might be reconsidered on some periodic basis; perhaps a five- or seven-year term would be a suitable one. After one or two terms of office, the director of such a program might well consider an interim appointment in an academic department, *if they would have him;* some of the most successful leaders of mission-oriented laboratories have returned to academia for limited periods of time to renew their intellectual skills or to acquire new perspectives.

Others on this panel will address their attention to the various reasons for establishing interdisciplinary and multidisciplinary research centers. While there are other reasons for doing so, it is my opinion that the prime impetus for giving more serious attention to interdisciplinary efforts lies in the growing need for new approaches to the study of problems posed by our society. It is the increasing complexity of the world in which we live and the insistent demands to study the problems posed by that real world that brings urgency to the topic we are discussing today. I would disagree with Dr. Aronoff's view that all of the pressures to do so come from outside; at their best, the insistent demands of students for relevance are demands that their education prepare them to cope with the difficult problems facing society today.

Glenn Seaborg recently placed the problem in a larger context. I quote: "Over the next few decades—before the end of this century—mankind will have to face and resolve challenges that may well determine the shape of its life for centuries to come, if not its very survival." Some have argued that other types of institutions should be engaged in the intellectual effort addressed to such problems. Industry, possessed of some of the most competent administrators and leadership talent, has addressed itself to problems of productivity and distribution, problems that today seem small by comparison with the problems of human survival on this planet. Alvin Weinberg, calling attention to the mismatch between the discipline-oriented structure of the university and the mission-oriented nature of the problems posed by society, has suggested that certain not-for-profit laboratories, such as the National Laboratories of the Atomic Energy Commission, should be relied on to work on such problems. Whether the university is capable of making an important contribution does not depend on whether the public is ready to support such activities or whether students will be willing to participate; it depends on whether the institution is capable of changing its values and structure in order to do so. Perhaps, as an alternative, we should consider the possibility of new institutional relationships to relate the efforts of universities to those of not-for-profit laboratories and government and industrial laboratories dedicated to the solution of real problems.

I recognize, of course, that we have not as yet reached a consensus as to how, or even whether, the university should play a significant role in addressing the problems posed by society. I think I have already revealed my own bias on this question. It is based on the premise that someone had better face such problems because they won't just go away. I believe the university *must* address itself to the major problems posed by society, not because society will not survive if we fail to come up with solutions, but because the university will not survive if we cannot persuade our students and the public at large that we are seeking to understand such problems.

Bryce L. Crawford, Jr.

THE SUPPORT OF INTERDISCIPLINARY AND TRANSDISCIPLINARY PROGRAMS

Each of us must speak against the background of his own experience, and it is inevitable therefore that my approach to this interesting pragmatic topic derives from our peculiar folkways at the University of Minnesota; it is as well for me to acknowledge this at the start. My hope is that if I frankly base my opinions on the Minnesota experience, the subsequent discussion will bring forth other approaches derived from other institutional experience, and we may all profit from comparisons and all take home new ideas for improvement.

Part of my background, then, is the Minnesota Graduate School organization, in which graduate degree programs are set up without formal reference to departments even in the case of what I presume we should distinguish as intradisciplinary programs. The graduate faculty having governance of a given major field is appointed by the graduate dean, and quite normally includes scholars in more than one department. Thus the twenty-three full members of the graduate faculty in microbiology include nine from the Microbiology Department in Minneapolis, four from the Microbiology Department in Rochester, three from pediatrics, and one each from dentistry, surgery, laboratory medicine, public health, food science, soil science, and chemical engineering. To be sure, in such an intradisciplinary major field the department does provide a home base and an administrative locus; but our habit of thinking holistically of the University's graduate offerings helps us to maintain calm when considering transdisciplinary programs. We have, of course, the usual gamut of departments, institutes, and centers, but graduate programs traditionally disregard boundary lines both of departmental "bastions of medieval autonomy" (to recall Peter Elder's phrase) and of centers whose function is to provide a letterhead base for training-grant applications. We use exactly the same channels and mechanisms in the consideration, review, approval, and program administration for graduate programs that involve several departments; so we have, at least in the philosophical sense, only normal troubles concerning the rationale for transdisciplinary programs. Obviously there are always questions regarding the justification for new graduate programs in what seems to be an emerging discipline, as biochemistry and statistics appeared each in its own time, and as operations research appears today; likewise in the case of proposed graduate programs that center not in a discipline but on a problem or field of application, such as American studies or international relations or urban planning—the programs that Dean Alpert characterized as interdisciplinary—there are questions of justification, propriety, and relation to the relevant disciplines. But such matters of basic justification or rationale are the purview of Dean Secrest's contribution, and I should not poach on his preserve.

What I am really leading up to is the assertion that, particularly in connection with matters of support for a program, the operative adjective for the trouble source is not interdisciplinary (nor poly- nor trans- nor multidisciplinary) but rather *interdepartmental*. For, at Minnesota, as elsewhere, the department is the practical budgetary unit through which a faculty member receives appointment, promotion, salary, and other goodies, and a student receives an assistantship. Certain loyalties are thus engendered; and also certain orders of priority develop regarding departmental goals and the allocation of departmental resources. I believe that we benefit at Minnesota from our ingrained habit of thinking of graduate programs as not "belonging" to departments; but our university is made up of perfectly normal human beings, and there are inevitably and understandably differences in priorities that any department gives to its various enterprises, and those enterprises that are nearer the center of the department's focus rank higher than those that are more peripheral.

I might underscore my emphasis on the interdepartmental nature of our topic by citing our graduate program in biochemistry, which I believe we would all nowadays define as unidisciplinary, and which in my university involves the cooperation of two biochemistry departments—one in the Medical School and the other in the College of Biological Sciences—plus, of course, a certain number of graduate faculty members in other departments. It is certainly interdepartmental in matters of financial support and institutional backing.

Christopher Morley once defined a familiar cooperative arrangement thus:

> Marriage is the square of $a+b$;
> That is,
> (a^2+b^2+2ab);
> Where 2ab, of course,
> Is twins.

I think we too may define the *2ab,* the added component or interaction term of our topic, rather specifically. There is a *2ab* interaction term with regard to facilities, laboratory or library or field, which are either special or additional when we add to the department-centered programs *a* and *b* the interdepartmental aspect; but Dean Alpert has dealt with this point. I should like to direct my remarks to the other easily seen components of support and backing that must be present if a graduate program is to flourish—adequate spiritual and financial support for both faculty members and students whose interest centers on an interdepartmental program.

I add the mention of financial support to that of spiritual support because both are required. There must be an atmosphere of support sufficient to recruit and retain and encourage faculty members with primary interest in the interdepartmental program. Money, of course, is not important; it is only essential. If an American studies program relies on activity from members of both the history and the English departments (actually there will be other departments involved), then these colleagues must be paid. Should the historian primarily interested in American studies—slightly different in emphasis and perspective from his colleague interested in American history—be paid from a separate "interdepartmental program" budget? That direction has many dangers, which to me seem to outweigh its easy advantages. Without spelling through them all, let me just say that such budgetary separation tends to build a wall between the interdisciplinary scholar and his disciplinary colleague; and I think from Dean Alpert's remarks that he and I agree that our need today—and I would say in all ages of scholarship—is to strengthen the healthful interaction and community of interest between the "applied" scholar, whose interest begins from a problem or application, and the "pure" scholar, whose interest begins from the discipline. Moreover, if one sets up faculty appointments, with tenure and normal faculty status in a separate "special interdepartmental program budget," then one is in difficulty if and when the experimental interdepartmental program expires. Departments, in short, and likewise faculty positions should not be created lightly or unadvisedly, but soberly, discreetly, advisedly, and in the fear—if not of God—then of the likelihood of change.

So we have the problem that while the graduate faculty in control science feels that another electrical engineer of their ilk should be recruited and added to the E. E. Department, that department, in its order of priorities, feels a greater need for a solid-state specialist. How do we resolve this tension?

Again in slightly different aspects, we encounter the same trouble. Certain teaching assistantships exist in mathematics; will they more likely be used to support a student majoring in operations research or in mathematics pure and undefiled? When the calendar brings the academic equivalent of the Advent season, and the time for consideration of promotions has come, how can we ensure that the History Department properly weighs the contributions to the overall university enterprise of their colleague who hares off in the American studies program? If a promising youngster shows interest in coming to Minnesota for graduate study in biochemistry, should our two departments vie with each other, in the American spirit of free competition, to make him the better recruiting offer, each utilizing the available variety of fellowships, traineeships, and assistantships which, in the present uncoordinated welter of student-support programs, each separately controls?

Neither in my university nor to my knowledge elsewhere do we have all the answers. But I would venture on certain approximations. First, the mechanisms for support of graduate programs should permit of flexible exploration and adaptation to changing needs; this would imply that they should not be restrictively tied to such permanent entities as departments. On the other hand, the departments embody a type of permanence and assurance properly associated with well-established disciplines of scholarship or categories of knowledge, which we should use as fulcrums for our cantilevers as we reach out to try new constructions. The corollary of these considerations is that existing departments must be involved in any new transdisciplinary programs; they cannot thrive without some measure of active interest and support from the established departments. This is hardly a startling conclusion; surely any worthwhile interdisciplinary or interdepartmental program will elicit some voices of support from related departments—but not necessarily voices of high-priority support.

A further corollary, to my mind, is that tenure appointments should involve the departments and be controlled by the departments—a man should have his appointment not in American studies but in English, not in fluid mechanics but in chemical engineering, not in operations research but in statistics; and he should achieve his promotions and tenure through the normal mechanisms of the department, which should evaluate appropriately his contribution to both departmental *and interdepartmental* enterprises.

My second point is suggested by these last sentences. If we are to call for departmental cooperation and participation in interdepartmental programs, then we must have a transdepartmental referee. There will be disagreements; there cannot be a baseball game without an umpire. The transdepartmental referee must be there, and he must have sanctions. Cooperation, even if voluntary and whole-hearted, needs a referee to settle differences of viewpoint. The two biochemistry departments at Minnesota both have a clean and vital interest in the unitary graduate program in biochemistry. This enterprise is indeed of central importance to both departments and cooperation in this mutual interest is beautiful to observe. But though their disagreements are mild, it is useful that there is a referee. Authorization of graduate programs is given and on occasion withdrawn by the graduate dean; there is therefore a real sanction more than adequate to back the very mild degree of referee's decisions in disagreements between these two departments whose real and central interests are so concurrent. In other cases cooperation is of less central interest, and the sanction must be more persuasive. Few children are persuaded to eat their supper by threatening to deprive them of spinach. The referee or system of referees must have control of essentials—budgetary and position allotments; decisions on allocation of resources must be made by transdepartmental and often transcollegiate administrators, and these should be made with the aid of evaluative recommendations from appropriate faculty committees. There are various specific ways in which this can be done, working through or, if necessary, around departmental budgets, tactfully but firmly, usually with the graduate dean and the arts college dean or the academic vice-president supplying between them both the velvet glove and the iron hand. This type of persuasive referee decision or influence can be effective with regard to a wide variety of interdepartmental actions ranging from the recruiting of appropriate new faculty to the allocation of student support and on to the cooperative course offerings among several departments. It is a type of central administrative influence whose dangers, when exerted with too much arrogance or decanal self-confidence, need not be stressed. Yet I see no alternative to some such approach to counterbalance the influence of provincial self-interest of departments. The referee is needed; but he must act in that spirit, or better in the spirit of a team captain, and not as a despot.

Thirdly, we cannot rely on the normal departmental mechanisms for the initiative needed in regard to interdepartmental programs. There must be a provision for initiating consideration of transdisciplinary programs through channels other than departmental, simply because a transdisciplinary program may not command enough support in any single department to bring it out with a recommendation for consideration. One way to provide such a mechanism exists at Minnesota, where new graduate programs need not be proposed by any department but may be brought forward for consideration by any group of graduate faculty members who feel they have identified an area of scholarship worth developing into a formal graduate program. There must certainly be other means to the same end.

Another sub-heading under the title of initiative has to do with promotion recommendations; there should be a decent and respectable route for the recommendation of a faculty member for promotion other than by the department. This could be through an appropriate faculty group review of the progress of an interdepartmental program. Perhaps it might be well even to provide the possibility for a faculty member who feels unappreciated to propose himself for promotion—with of course an appropriate and defined mechanism for evaluation of his self-recommendation by an interdepartmental committee. The important thing is that there exist a defined and normal and respected route for the initiation and evaluation of such matters aside from the departmental route.

Finally, and more generally and optimistically than my comments up to this point may appear, I believe that the questions regarding financial support and institutional backing of transdisciplinary programs remain in their larger aspects just the same as the questions of support and backing of academic programs in general. The special points I've touched on are small perturbations on the ever-present question of support and backing for progressive academic programs in general. Transdisciplinary programs are nothing new or modern; any living community of scholars will turn up and pursue transdisciplinary questions out of the very nature of scholarship. Given a chance to mingle, scholars will interact across fields; some, to be sure, will keep narrowly to their own kind, but there will be enough of the broadly curious and articulate to leaven the lump. So they find each other's fields fascinating, as with my biochemical colleague who is rather an expert in Civil War history or my legal colleague whose knowledge of thermodynamics and classical physics is both profound and vivid. So the physicist and the economist find the mathematician a helpful colleague, and he in turn finds stimulation in their discussions; so the classical scholar finds common interest with the anthropologist and the geologist. It is in the nature of scholarship to require constantly changing patterns of categorization, to discover new patterns and alignments, shared problems and merging interests. No external stimulus nor outside imposition led to the transdisciplinary program of molecular biology: the dissective progress of biology simply met the synthetic progress of structural chemistry to form a common frontier, when an enzyme was at once a molecule and an organism. Transdisciplinary programs are not an exotic fungus, but the natural healthy growth; if they present problems beyond our general difficulties in academic management, it is not any abnormality in the programs, but our own administrative arteriosclerosis, that is to blame.

Leigh Secrest

THE RATIONALE FOR POLYDISCIPLINARY PROGRAMS

My colleague Dean Alpert has contributed significantly to a better understanding of those centers and programs representing more than one of our conventional contemporary disciplines. The definitions given are helpful, but he has posed a problem for me, since I wish to concentrate on what I think is a unifying hypothesis of rationale for *all* such efforts; hence, I need a term to designate the universal set of all programs, laboratories, centers, etc., that involve at any one time the techniques and content of more than one conventional discipline. Just to be different and to counter any dangerous trend toward fewer labels, I have chosen to call members of this universal set "polydisciplinary efforts."

As an aside, I should mention that all of this play on words is artificial and smacks somewhat of rhetorical justification for our behavior as Parkinsonian bureaucrats. In trying to organize my thoughts for this presentation I found the task more and more difficult with the passage of time, primarily because I am uncertain as to what constitutes a basic discipline. It would seem that an understanding of that label is prerequisite to understanding the meaning of the several prefixes that have been suggested. We could well fall back on a paraphrasing of the statement from Alice and say that, "The word 'discipline' shall mean precisely what I want it to mean, no more and no less." Or, we might take the experimental scientist's approach of an operational definition and identify disciplines with the academic departments currently in vogue. Or, we might take the view of the humanist and resist any attempt to fragment by definition the totality of man's knowledge. The dictionary definition of a discipline as "a subject or field of study" is no help at all. So let's go back to Alice. I shall take a discipline to be whatever we want it to be. In this way we can still talk about biochemistry as being polydisciplinary even though many of us have academic departments of biochemistry on our campuses.

Having sidestepped this semantic problem, let me suggest another one. In a recent address at Rice University, Dr. Charles Garside, Jr., associate professor of history, advanced the thesis that behind virtually all of the ferment on our campuses today lies hidden somewhere the struggle between the German and Socratic traditions of education—specialization versus generalization and unity. In some respects the tension between departments and polydisciplinary units reflects this same sort of struggle. On the one hand, the department tends to maintain the faith and methods "once delivered" while the polydisciplinary unit strives for relevance to problems of the real world.

I would like to suggest that this represents not an either-or struggle, but rather a progression—that there is an evolutionary inevitability if you will, in the emergence of the present polydisciplinary approach.

Dean Alpert mentioned three different types of polydisciplinary efforts—cross-disciplinary, interdisciplinary, and multidisciplinary. Let us consider the evolutionary processes of three fields exemplifying these categories.

We begin with biochemistry, variously called biological chemistry, physiological chemistry, and chemical biology. According to the 1964 Encyclopedia Britannica, the first institute for physiological chemistry was established at Strasbourg in 1872 under the direction of Ernst Felix Hoppe-Seyler. Training in physiological chemistry became available in the United States at Yale's Sheffield School of Science in 1880. The origins of biochemistry can be traced back to the very early days of organized knowledge, but it did not become unified until men such as Liebig and Pasteur brought their insight and genius to bear on the problem of understanding the processes of living systems.

Liebig's efforts to correlate his concept of the great chemical cycles of nature with the observed behavior of plants laid the groundwork for the development of agricultural chemistry, especially chemical fertilizers. The story of Pasteur's work in fermentation is a fascinating tale of the interplay between basic research and the problems of the fermentation industry of France.

The first nuclear or atomic reactors were designed by interdisciplinary teams of individuals drawn from many different science and engineering specialties. Both new facilities and patterns of administration were required, first to meet the challenge of realizing chain reactions and later to harness the phenomenon for power applications. Pieces of a solution could have been, and were, furnished by the disciplines of the time, but no one discipline could provide all the necessary methods and answers. The polydisciplinary approach was made necessary by the challenge of a problem of the real world. Those early efforts evolved into a continuing field of study, nuclear engineering. The academic bureaucracy has acknowledged its permanence by recognizing departments of nuclear engineering. Again this new discipline has its roots in a continuing and important need of humanity, energy.

International affairs, especially the needs made evident by World II, were credited by Gus Arlt in a 1965 paper for bringing about the establishment of area studies as an important and enduring field of graduate research and education. But even these programs are not new. George Kennan points out in his *Memoirs* that in 1929 he did post-baccalaureate work at the Oriental Seminary of the University of Berlin. That institute was established originally by Bismarck for training young German diplomats, but by 1929 it had become a general center for what today would probably be called area studies for non-Western cultures. Area studies constitute a visible recognition that events and societies of the real world do not fall into the neat compartments of sociology, language, economics, politics, and so forth. We should also take cognizance of the fact that, in the words of Gus Arlt, "a wartime exigency achieved what years of peaceful discussion in faculty meetings had not done. It proved that sacrosanct departmental lines could be crossed without destroying the integrity of the disciplines and that reasonable breadth and depth were not necessarily incompatible."

The interdisciplinary approach, of course, has been expounded for the past twenty years by another "war baby"—the organized research unit, which has served as a viable link for the application of academic expertise to the problems of federal agencies. Since governments, individuals, and foundations tend to set funding patterns according to some external set of priorities, allocation of scarce resources frequently—possibly unfortunately—supplies the motivating nudge for forming problem-oriented institutes. One can argue rather cogently that it is precisely this mechanism that breached the ivory tower. However, at least in theory, these problems were delegated by society to the university via the funding agency. Whether you consider this a benefit of polydisciplinary activities depend upon your personal view of the purposes of a university.

There are those who argue persuasively that involvement of the university through mission-oriented research has led to many of the abuses and dissatisfactions that now plague our campuses. I prefer to argue from another perspective and postulate that more and better polydisciplinary effort in the humanities and social sciences, with daily interaction between federal bureaus and the campus, could have done much to revitalize or, at least, lend an aura of relevance to our curricula.

What has this to do with rationale? Simply this. The parent disciplines are strengthened, not weakened, by dynamic interaction with others. As of this date no one has proposed a better method than polydisciplinary ventures for this cross-pollination.

Despite the wide variety of polydisciplinary efforts launched in the last two decades, most have come about in response to a need or an opportunity. I suggest for your consideration the following hypothesis of rationale, which seems to underlie all bona fide polydisciplinary efforts:

> Polydisciplinary efforts are the natural adoptive response of intellectual man to the challenge presented by problems of the real world as contrasted to the simplified models or representations in use within academe at any one point in history. Such

efforts either begin as coalitions of individuals of varying skills but with at least one unifying purpose or intellectual interest, or with that rare individual who is able to master several disciplines and bring them together in a novel and unified fashion.

If this hypothesis is true, and the cases cited lend it some credence, then the polydisciplinary effort is at the cutting edge of man's intellectual evolution. It deserves our continuing attention and study.

The polydisciplinary effort should be more than a way of slipping by departmental obstructions—it should be accepted as a viable means of intellectual progress. Polydisciplinary research should be accompanied by polydisciplinary learning and teaching. Cooperating faculty should pool talents and ideas in the seminar and classroom as well as in the research laboratory. In brief, it is my opinion that the intellectual rationale for polydisciplinary ventures is so compelling that we should move it from the research center to the classroom. Perhaps more graduate teaching by case study in the arts and sciences can be a natural companion for the polydisciplinary research and study center.

S. Aronoff

INTERDISCIPLINARY SCHOLARSHIP

1. *The Interdisciplinary Nature of Knowledge.*

It takes little scratching below the surface of any academic discipline to note its interdisciplinary development. With the possible exception of pure mathematics, all the sciences are crossbred academically. This heterozygosity among the sciences exists to varying degrees and depends largely where, within the disciplines, the discussion focuses. The physicist, in his preoccupation with the nature of atomic bonding, finds himself associated with the chemist and biologist. Indeed, we have had such interdisciplinary programs as biophysics, chemical physics, and medical physics for some time. Even the course work now overlaps: thermodynamics is taught in physics, chemistry, and to a lesser extent, biology. The same is true of quantum mechanics. Similarly, our social sciences are now so intertwined that they are distinguishable only at the maximum of some kind of dispersion curve of pertinent knowledge. It is difficult to distinguish between some aspects of sociology and social-community psychology.

The examples above may be thought of as contiguous, with unestablished but well-recognized interfaces. However, all of us are aware of seemingly unrelated academic unions, for example, of law with the various professions, as medicine, patents, and, more recently, engineering. Then what is new, and why the sudden concern? The answer would appear to be in the approaching crises for human existence, the clairvoyance offered students whose minds are not cluttered with experience and the narrowness of contemporary academic training in terms of human requirements for planned survival.

It is conceivable that any, or many, of our institutions—academic, governmental, etc.—could survive in a dying or ravaged civilization. Indeed, the monasteries in the Medieval Ages are stark reminders of such a condition. But there is increasing demand that our academic institutions, having been the primary source of the material structuring of civilization, also be the vehicle for the analysis and delineation of solutions for its ills.

No action, social or physical, is without its reaction. Granted, then, that the university must play a role in problem-solving within the society it affects, how does this affect the operation of the university and especially, from our point of view, graduate education?

2. *Will Multidisciplinary Programs Require University Restructuring?*

Interestingly, the demand for multidisciplinary programs arises primarily from sources external to the University. Those within it are generally bound by the web of their own educational processes to operate within the now-traditional educational molds and generally view solutions to multidisciplinary problems as requiring the cooperation of individuals each trained in a unique discipline. A ploy used by some is the double major, but unless some lessening of the normal academic rigors is allowed, this path is usually impossible, since the requirements of a single discipline are *ipso facto* sufficient to test the student to his limits. The dilution of single disciplinary demands to allow for double majors results in scholastic deficiencies that may require subsequent decades of efforts to strengthen, while the scholar himself is cast simultaneously in the role of an orphan, neither department claiming him for its own. Indeed, survival frequently results solely from the fortunate tradition of strong personal relations between the major professor and the student, as well as the subsequent efforts of the scholar to choose a suitable academic pathway and determinedly, purposively, remove his deficiencies.

What, then, can one say concerning the bait dangled before universities by the federal government in the form of monetary support for graduate programs in a specific resource, for example, water? No one will doubt the need for clear understanding of the critical role of this compound in our daily lives and in any considerations of human survival. But even a casual examination of the scope of the proposed program shows it to have a complexity far beyond the capabilities of our educational systems *as now constituted.* An intelligent familiarity with the role of water as a natural resource involves familiarity with aspects of chemical engineering, law, economics, and sociology, as the very minimum. It is impossible in our present structure for any single individual to attain the level of academic sophistication for a doctorate in all these disciplines simultaneously; a doctoral candidate in a natural resource must, at the present, engage in dilettantism. Integrity requires that degrees granted in this area be distinguished from those given in the usual disciplines. In one case, we are cutting the cake vertically, scholarship measured as a function of increasing depth of the slice; in the other, the cut is horizontal, removing, in general, only the frosting. There is nothing wrong with frosting; the young, especially, dote on it. But just as the frosting alone will not tell much about the cake beneath it, so multidisciplinary studies may well neglect the substance of knowledge.

The very existence of multidisciplinary areas in the sciences is evidence that our tightly-structured vertically-oriented disciplines can be loosened sufficiently to allow for horizontal diffusion of knowledge. Few know this better than the biologist, who has seen his area grow, in my lifetime, from an almost completely descriptive one, when only human physiology had the beginnings of quantitative aspects, to today's arena involving, at the populational levels, the most sophisticated aspects of applied mathematics and, at the subcellular levels, combinations of physics, chemistry, and mathematics, which not too long ago were considered the sacred domains of those disciplines alone. Analytically, the development in biology resulted not from the increasing sophistication of the biologist but from the "spill-over" of physicists and chemists (along with some of their curriculum) into biology. For example, in physics the kind of physical optics common twenty years ago is given scant shrift. The physics department course in physical optics is now given in terms of scatter theory, with a level of sophistication in mathematics beyond the present-day biochemist. The latter, utilizing physical optics routinely, must now teach physical optics in his own—frequently a biology—department. (The chemists have profited both ways, from their adaptation to the discipline of physics and from their incursion into, and increasing domination of, biology.) But it is precisely this spill-over, both of curriculum and of individuals, that forms the basis for horizontal diffusion. Indeed, this is now here more obvious than in biology itself. In biochemistry, for example, the preoccupation a third of a century ago with the synthesis and requirements of essential amino acids and vitamins has given rise to the virtually separate discipline of nutrition; the many lectures on pH, its meaning and measurement in physical and biological systems, are now given only passing comment, and the students are referred to texts for detail. The biologist of that time was content in his mathematical training with an operational knowledge of calculus. The minimum now is differential equations, and it is easy to predict that, apart from the practical knowledge of computers as a tool, the future biologist shall need training in matrix theory, tensor calculus, and integro-differential equations.

The biological bases for much of social malignancy, the chemical bases required to resolve many technological problems of society, the physics bases of much of our industrial and material development forces an interdigitation of the social and natural sciences; but the educational cost arising from the limited time for human education cannot be neglected. We shall return to this point. Further, the social sciences introduce a completely new parameter into the properties of the system, namely, the philosophy of determining and ordering values; but again, we shall return to this later.

The question, still unanswered directly, is whether the university can restructure its educational system to provide a multidisciplinary mode. And the answer is yes, if it is willing to undergo a drastic reorganization in its own structure and methodology. The problem is akin to that of the comparison of different cultures. It is well known that the logic of the linguistics of the language of American Indians (any of the separate main branches) is as different from Indo-European-based languages as is a counting system involving the decadal compared to the binary bases. Just as there may be a theoretical infinity of cultures in our society, so there are an infinity of ways to slice the academic cake.

Let us take a horizontal slice as an example and ascertain what is involved. Suppose that we consider the slice called "transportation." A student comes to us and states that he wishes to do his doctorate in this field. Our immediate response is to refine the request into our accustomed vertical academic mold. We ask, "What aspect of transportation—economics, engineering, mathematics?" Until the student's mind is deformed from his relatively unstructured liberal arts background, he will undoubtedly have been thinking of a variety of aspects: of the changing modes of transportation, of his particular problems in getting to and from the university, of the parameters introduced by interplanetary transportation, of the relation between city development and various modes of transportation. And what do we do to this imagination? We tie it to a vertical discipline. If the student has been forced to reply to our vertical restriction by, "I don't know—economics, I guess," then he is assigned to a specific problem, for example, the relation between railroad rates and the I.C.C., a topic rather less lustrous than his dreams.

Obviously, the horizontal slice for transportation as an area of scholarship is as intriguing as any of our present disciplines. There are most exciting facets: legal; engineering; the interaction with cities, states and governments; the relation to pollution; planning, priorities, and funding. Unfortunately, even our manner of stating the problem tends to force us into the old ways of thinking. The curriculum for a major in transportation could —and should—have an undergraduate as well as a graduate aspect, where a dissection of the various aspects results in a sifted and graded dispersion. One would hope that in this rethinking, a preconceived vertical structure could be completely avoided. Thus one might have an introductory course in the *structure* of a modern (or primitive) transportation system. There could be another on transportation and the *form* of city development. In both cases the word in italics is intended to indicate the point of view of the course. One might add, as a third, *kinetics*. The general notion is that if one wishes to take a horizontal approach in our university curriculum, it can be done; but it requires drastic alterations. The presently constituted departments would be meaningless, as would be most of our vertical academic molds.

Such a revised, horizontal curriculum would have both the rigor and sophistication of the present vertical curriculum. The degrees awarded would be fully equivalent both in intent and scope as those presently given. There would be no need for equivocation or pleas for leniency.

A thorny question is whether the two systems are compatible. In all probability, an answer to this question exists; but it must be analyzed in a quantitative manner. Until individuals are trained according to the horizontal approach, the most practical mechanism is intercalation or interdigitation. One mode of this is the teaching approach used in some medical schools, where, to study the body as an "organ or tissue," the several vistas represented by the various vertical disciplines (pathology, anatomy, biochemistry, etc.) are presented by different staff members, each trained in one of those disciplines. For a particular organ, for example, the heart, there will be lectures on blood, biochemistry, muscle structure, rheology, pathology, etc., as they relate to the heart. The student is then left to do the integration, having viewed the organ from the several vantages. Interestingly enough, in postdoctoral studies, that is, in residencies, the horizontal approach becomes standard, so that medics, in specializing become indoctrinated in *all* aspects of, for example, internal medicine, eye, ear, nose, and throat, etc. The presumption obviously is that by the time a medic reaches his residency, his training is sufficiently broad to allow him to correlate various vertical disciplines into a broad horizontal one.

3. *On the Uniqueness of the Horizontal Structure in the Social Sciences.*

We return now to the two points noted earlier but postponed for further discussion: (1) the limits imposed by time on the formal educational process, and (2) the evolutionary uniqueness of the human being in devising models for progress. Consider the latter first. There is a uniqueness in those disciplines involving human endeavor. In all other disciplines we strive to bring order into the miasma of ignorance. We proceed from the assumption that our inquiries require only an ascertaining of facts and an ordering of the facts into models or theories that may be tested in one manner or another. This is implicit in the natural sciences. However, the study of man cannot avoid introducing the parameters of possible large-scale *purposeful* environmental and genetic changes, so that both the rate and direction of evolution may be affected. Thus *the goals of human endeavor become a component of human studies.* While it is possible, for example, to study the past development of transportation in a reasonably precise manner (devising models relating past rates of urban growth with railroad construction), it is *not* possible to prepare models of *future* transportation without assumptions concerning the structure of cities, and plans for the latter vary considerably. Equally difficult problems will be raised when we learn how to modify specific genes, the evolutionary consequences of which will be unpredictable. Even in as restricted an area as the immediate alteration of a local environment (for example, the proposed filling of San Francisco Bay), there would be profound effects, both physical (i.e., meteorological) and social, with global reverberations. In short, while there are examples of highly organized, lengthily-evolved animal societies, ants and bees, for example, we have no knowledge of the evolutionary bases of their development nor have any past forms of life been able, as far as we can ascertain, to effect as broad a change in the environment as humans. Ants and bees make a local environment; but man can change, if he will, the entire earth. Indeed, by his pollution, he is doing it whether he wills or not.

As a consequence, we are without models for the development of human affairs; and academic multidisciplinary studies involving this parameter can operate only in the light afforded by history and in the aspirations of mankind. We shall have no knowledge of the effectiveness of any non-historical models we construct, nor will we be able to ascertain their utility except by testing. Strategies presumably will be devised that cause the least social discomfort; and these strategies will require considerations of rates, quantities, and directions of change, the consequences of which cannot be foreseen.

Our last point concerns our temporal limitations. There are constraints in time that set bounds for higher education. We must devise multidisciplinary curricula that satisfy the rigors and standards for a level of scholarship that molds human endeavor and at the same time develop individuals who can serve as physicians to the ills of society. A Ph.D. in urbanology will require knowledge in the engineering, social, legal, historical, and architectural interrelations of ancient and modern cities. He will have to have thorough knowledge of the methodologies for optimization of matrices, of the sociological consequences of diverse forms of density distribution of human habitats, and of the psychology of enforced leisure.

Programs of this type will require drastic revisions in our curricula if the studies are to be completed in the usual time allocated to academic studies and if they are not to be thought of as lifetime affairs or performed only by cooperative efforts of several individuals trained in vertical disciplines. It is conceivable that a wholly new rationale in curricula will be required.

It is time to begin a thorough investigation into the relations between our academic offerings and our social needs.

Fifth Plenary Session: Grading or Other Evaluation of Student Achievement

Friday, December 5, 8:00 p.m.

PRESIDING: Alvin H. Proctor, *Chairman, Council of Graduate Schools*

Wesley J. Dale, *University of Missouri at Kansas City*
David S. Sparks, *University of Maryland*
Winston W. Benson, *Mankato State College*
Leonard J. Kent, *Chico State College*
Toni Iadarola, *Georgetown University*

Wesley J. Dale

CONCERNING GRADING AND OTHER FORMS OF STUDENT EVALUATION

As the first panel member for tonight's discussion of the urgent and complex topic of grading and other evaluations of student achievement, I have chosen to present a broad-brush overview of the evaluation problem as a whole—defining the problem by delineating a few of the principal attacks and suggesting some of the underlying causes for the grading ferment. This will be followed by a brief summary of the arguments that support traditional grading along with several recommendations for further discussion, experimentation, and possible improvement of our current evaluation practices.

There is widespread and increasingly vocal unrest across the land regarding the validity and usefulness of our current methods for evaluating student abilities and achievement, but the furor is directed mainly at the traditional grading system. If we listen carefully to the din of criticism about grades, it becomes clear that the many and diverse concerns fall into three main areas of dissatisfaction. First, the use of letter grades, with associated numerical values, presents a deceptive appearance of objectivity and precise evaluation. With the judgment reduced to a neat single letter to which a numerical value can be assigned, the apparent precision of the record in reality conceals a host of assumptions, variables, and methods by which such a record is determined. Second, it is claimed that the use of letter grades and grade point averages distorts and debases the whole learning process—of the individual student, of students in relation to each other, and of students in relation to their instructors. Third, letter grades and grade point averages, because of their assumed accuracy, are often put to questionable uses both by universities and colleges, and by society.

Why does the concern about student evaluation arise so urgently at this time? The reasons for the impassioned ferment are not hard to find. Grades meant one thing to our society when a privileged few went to college and when the main purpose of a college education for most of the students was to achieve social status, to learn to live the life of gentlemen, or to prepare for entrance into a limited number of learned professions. Grades must mean something quite different to our society, however, when undergraduate education is extended by social right to the broad mass of our young people coming from every social and economic stratum and when the college degree constitutes a necessary credential for entry into the most important and satisfying occupations and professions.

More students are going to college, so admissions are more competitive. This results in increasingly rigorous standards both for admission and continuance. There is more competition for the scarce resources for education. More students are going on to graduate schools as the more desirable careers in our society are closed off to those without graduate training. Graduate schools, in turn, are faced with more potential graduate students than they can accommodate. Their admissions standards are apt to climb even higher as they are faced with leveling or decreasing resources for graduate education.

Another reason for the grading ferment is that classes are larger, teachers more mobile and less personal, and grades are more dominant. For some of the oversized classes of today, the IBM grade sheet posted on the door may be the only intellectual guidance offered the individual student. It should be noted, moreover, that grades were once used as a bare symbol of classroom distinction and esoteric achievement. Now, grades have become a vital social currency, accompanied by an increased ethical sensitivity and a growing commitment to an egalitarian ideal. This means that grades and the evaluation processes have assumed a new social dimension. Finally, the emergence of local and national discussions about grading reflects the dissolution of consensus regarding the role and function of higher education.

A number of alternates are being suggested to the traditional grading system. I will mention a few of these, but time does not permit any to be discussed in detail. It is my feeling that no one of these alone is an adequate alternative to the traditional grading system. Among the possibilities are a sharp reduction in the use of letter grades—with options such as pass-fail;

satisfactory-unsatisfactory; credit-non-credit; supergrades for two or more courses of similar subject matter; certificates of satisfactory completion; non-reporting of failures or of poor performances; variable weighting of grades according to the importance of given grades to the students; or, a selected GPA, as, for example, the average of the three best grades of the student among the courses taken in a given semester. Also suggested by critics are grades not given by the teacher, but rather by a grading committee or an outside examining board. Finally, many students would like to see used a compilation of individual participation or dossiers in lieu of grade point averages, class standing, and so forth, for admission to graduate schools. Such dossiers would be student-prepared, which might include some summary elements of grading but would also illustrate the student's special abilities and range of interests.

But surely something can be said in defense of the status quo in grading practices. The defense that can be made is, in many ways, a mirror image of the attacks upon letter grading and rests much of its case on the durability and practicality of the traditional system. Even if errors, inconsistencies, and a false sense of accuracy are conceded, there remains the fact that the wide use of one system in which we have had long experience has its benefits for students, faculty, administrators, and society in general. Most academicians understand that a B grade at one university means something different than a B grade in another. But experience in the use of letter grades, both internally and externally, helps to guard against misuse and misinterpretation. As a common currency, grades facilitate the student's transfer from one college or university to another. At a time when colleges and graduate schools are overwhelmed with applications for admissions, the traditional grade point average is one of the most consistent indicators of the student's probable success. Graduate deans and admissions officers ask how applications for admission to graduate school can be processed if, instead of grades and supporting recommendations, they had to interpret thick dossiers in an attempt to discriminate among them. Grades have, in short, been tested by experience as valuable, useful, and efficient.

As far as other alleged evils are concerned, the defenders of the traditional system can identify off-setting benefits. Grades provide a description of progress for students, protecting many from sporadic patterns of study or no study. They provide the student with a measure of his own comprehension of a subject and his progress in learning. A student's grade profile serves to indicate for him and for others areas of particular interest and capability in the selection of a major discipline or career.

For the teacher, conscientious grading can serve to indicate the success and failure of his instructional methods and to indicate the kinds of approaches that might be of greatest benefit to instructors in a class or to sections of a course. Furthermore, in the course of time, a large number of courses and grades tend to balance out the false assumptions and inaccuracies that individual grades may hide and provide a shorthand communication useful to the student, the teachers, college and university administrators, and prospective employers. Finally, there is admittedly a type of personal accountability inherent in grading systems. Teachers, in general, have little or no pretense of perfection in their academic accounting systems, and students should realize that throughout their lives their actions, abilities, and achievements will constantly come under evaluation, as do the actions, abilities, and achievements of virtually every responsible member of our society.

If the traditional letter grade system is found to be so objectionable by some, I would remind them that there is probably no one panacea for the problems of student evaluation, and I advocate no one alternate to the letter grade system or set of alternates to the grade-bound evaluation process. No one system, including the analytic-diagnostic methods and the dossier approach, is any worse or any better than the user who employs them. In this connection, it is fair to note that there are vastly more problem graders than there are grading problems.

It follows that the real possibility of early relief from the grading problem begins with a sympathetic and comprehensive perception of the problem by teacher/graders, a sensitized awareness of the capabilities and limitations of alternate methods of grading, a willingness to identify and discard the artificial rigidities in evaluation systems, a willingness to experiment with a mix of these alternates to achieve more flexible and meaningful techniques, and a philosophical resilience having the capacity to accommodate new, more appropriate, and more personalized methods of students evaluation as suggested alternates are explored.

Faculty should be free to experiment and should receive administrative encouragement for such experimentation in order to arrive at new ways of measuring a student's progress—ways that are more meaningful to him and his total development. Much more individual counseling and personalized diagnostic evaluation should be employed by faculty. Institutions should maintain standing committees to provide continuing opportunities to discuss the evaluation of student performance, and such committees should encourage a greater appreciation for and recognition of individual educational objectives. Also, students should have a greater choice in the selection of systems by which their progress towards individual objectives might be measured. I strongly urge that each college and university develop a mix or a combination of evaluation mechanisms and processes appropriate to the great variety of its educational and institutional objectives and to broader professional and social aims as well.

I believe that the dragon of the traditional grading system is not really a dragon at all. I believe that the letter grade system will survive and persist. However, we will undoubtedly witness a sharp reduction in the number of letter grades used, with much more attention paid to the diagnostic function of student evaluation concerned not alone with the determination of relative ability but with a finer discrimination of individual interests, abilities, and skills. As graduate deans, we should also realize that other dragons will appear before us, as they indeed have, dragons that will ask us to defend the whole host of graduate regulations that now filter, guide, exhort, discipline, assess, push, and sometimes hinder our graduate students in pursuit of advanced degrees. There is an increasing feeling among graduate students that they are working under a climate of threat and fear of failure. Fear should not be the dominant motif in a graduate student's life. The real goal of graduate training, learning and enlightenment, is often subsumed by the paraphernalia of performance criteria.

We must be prepared increasingly to defend or to change and at least to define more clearly the missions and regulations of degree programs, the purposes and usefulness of the residency requirements, the purposes and value of the dissertation, of transfer regulations, of the nature of comprehensives, and other graduate school legislation. The student must increasingly be respected as an individual. We cannot demean the student by imposing irrational rules and regulations upon him without a credible rationale.

I am convinced that it is primarily the responsibility of faculty and of graduate advisers to see to it that a student's graduate years are years of satisfying and profitable quest for creativity and for personal and intellectual maturity as well. As graduate deans, we can do much to encourage a greater sense of responsibility to graduate students on the part of faculty and graduate advisers.

There is some tendency for us to regard graduate education as an intellectual experience alone, leading students to the summit of knowledge and grace. For a responsible answer to the grading crisis, however, I believe we must have an abiding awareness that graduate education is much more than an intellectual experience alone; it is an intensely individual and profound emotional one as well.

David S. Sparks

GRADING AND STUDENT EVALUATION

In my first draft of these remarks, I gave them the optimistic title of "Grading and Student Evaluation: A Progress Report." On second thought, I have concluded that discretion is preferable to audacity, and I have shortened my title to simply "Grading and Student Evaluation." I leave the question of progress to you.

Late last spring I received a call from President Arlt. He reported the creation of a joint study group to be called an *Ad Hoc* Committee on Grades and Evaluation. It was to have representation from the Association of American Colleges, the American Association of University Professors, the United States National Student Association, the American Association of Collegiate Registrars and Admissions Officers, as well as from the Council of Graduate Schools. Dr. Arlt asked if I would join with him and Dean Wesley J. Dale in representing the Council. Confessing to no particular competence in the matter, I admitted that I believed the subject an important one. Brushing aside my disclaimer, Dr. Arlt promptly interpreted my expression of interest as an acceptance of the assignment. I have rarely been subjected to such efficient yet elegant arm-twisting. He didn't even give me time to express my suspicion that he found me a likely candidate largely because I live in the suburbs of Washington and would therefore be able to meet with the Committee at much less cost in time and energy than would be required of abler men who lived farther away.

My remarks today constitute a brief review of the work of the joint study group and are intended to prepare you, in some degree, for the report of the *Ad Hoc* Committee, which will be ready for distribution in the not too distant future. I very much hope that many of you will use the discussion period following this panel presentation to provide us with added perspectives that we may communicate to the Committee as it nears the conclusion of its deliberations.

Both the subject for our panel discussion this evening and the participation of the Council in the work of the *Ad Hoc* Committee grew out of the concern that many of you expressed in your responses to the request of Dean Rhodes for guidance for his Committee on Policies and Plans that he circulated last March. Several of you expressed particular interest in the growing number of proposals for pass-fail grading at the graduate level. Others believe that the entire question of grading ought to be explored. A few wanted to hear a discussion of the larger issues in overall evaluation of students.

Still disclaiming any particular competence in this field, I find that my service on the *Ad Hoc* Committee and the review of the literature it has entailed have left me with some impressions and reactions I would like to share with you.

Several members of our Committee, most particularly our Chairman, Professor Neill Megaw, who is also Chairman of the English Department at the University of Texas, Austin; President Edward J. Bloustein, of Bennington College; and the student members of our group are persuaded that our present grading practices have reached the crisis stage. While they focus largely on the grading of undergraduate students they believe that letter grading at the graduate level may be equally counterproductive and corruptive of the learning situation.

Before attempting to summarize the indictment of letter grading as it stands at present, I would make the point that while the severest critics of present practices are undergraduate students and those who speak for them, very serious concern is also being expressed by a great many administrators and faculty members. Among the latter are scholars and researchers whose credentials in the fields of human learning and cognition, psychology, testing, and measurement give special weight to their opinions and demands for reform.

At the risk of oversimplification, I believe that the charges against letter grading can be summarized in two broad categories. The first is that they do not accurately reflect either student performance or capability; they are regularly used by our schools and society generally in determining the allocation of opportunities and rewards on the false assumption that they report something specific and significant about past performance and future success. Secondly, it is charged that letter grading seriously impedes and may corrupt the learning processes.

The charge that our grades do not accurately reflect either performance or even potential for performance is familiar to all of us. Only the intensity with which the charge is pressed is new. We are also familiar with the great variations among us in our degree of faith in our grading practices. It is common wisdom that faculty and students in the natural sciences and engineering, particularly in those areas where the emphasis is on the transmission of information and the acquisition of skills, have more confidence in the objectivity and hence the accuracy of conventional grades than do those in the humanities and the social sciences, where grades are more likely to contain elements of subjectivity. It should occasion no surprise, therefore, to learn that letter grades are being most vigorously attacked by students and scholars in the social sciences, humanities, and the creative and performing arts.

As academicians, we are all familiar with the fact that a B grade from one institution means quite a different thing from a similar grade at others. More, we are aware that similar grades mean different things in different departments of the same institution and even differ from professor to professor. Long familiar with these variables, we tend to accept them as a fact of academic life, make the necessary allowances and discounts, and proceed with the business of intelligently interpreting the transcripts that come our way.

Students and the public, however, tend to take grades at face value, and rightly so. They know that many of the rewards and punishments of academic life are distributed on very precise calculation of academic averages. From experience that is frequently bitter, they have learned that admission to professional schools, graduate schools, and advanced standing within their own colleges is too frequently determined on the basis of average grades calculated to the second decimal point. Deny it as we will, we all know of cases in which a student was denied admission, a scholarship, a fellowship, or some academic honor on the ground that his average was too low. We know that in such cases there is usually other evidence of a lack of satisfactory performance contained in a letter from a faculty member, a low test score, or inadequate preparation in a necessary prerequisite. This information is, however, rarely communicated to the student, and when it is he is not inclined to believe it. And in spite of our growing awareness of the deficiencies in our current practices in measuring either academic excellence or potential, many institutions, including my own, carry on their books rigid requirements for admission and retention based upon average grades.

While all of us within the educational enterprise have learned to read transcripts with great caution, to rely on letters of recommendation, test scores, interviews, personality profiles, and the student's own statement of purpose to supplement our judgments of individual students, academic requirements based on average grades appear all through our catalogues at both the undergraduate and graduate levels. The result has been, in the language of the day, a growing credibility gap.

The second charge against our current grading practices is, to my mind, less serious; but it is one that is being heard with increasing frequency and growing stridency. In support of the charge that the power to grade is the ultimate weapon in the hands of the faculty to determine the content of the curriculum and the course, to determine what is "relevant" for the student to learn, opponents of the present system argue that it constitutes an intolerable form of tyranny over the minds of students. Learning takes place, they contend, only in an atmosphere of complete and mutual trust between teacher and learner. Open discussion, tolerance of divergent opinions, and originality can flourish, critics say, only when the power of the instructor to coerce the students is removed.

Resisting the temptation to adopt the stance of the neutral administrator in a fight between faculty and students, a situation in which a dean can only catch it from both sides, I venture the opinion that there is more heat than substance to this charge. Putting aside the autocrat of the classroom who can brook no dissent from his carefully wrought opinions as an anachronism and an academic casualty, I believe that this charge is not well-founded and concerns a relatively few students. I would also point out that those making this charge rather regularly suggest that the situation will be improved by the simple device of giving the student the power to grade the instructor. Unless I am mistaken, students have been grading their instructors ever since the introduction of the elective system through their choice of courses. Moreover, the practice of evaluating and grading members of the faculty through the use of published course guides is spreading very rapidly.

One part of the charge that present grading practices corrupt the education enterprise does, it seems to me, have particular force. It is argued by the more moderate critics that the present system prevents an individual student from integrating his courses, seminars, and independent study into a meaningful whole. Both faculty and students at present are encouraged to view education in bits and pieces that are readily combined only in the ubiquitous and misleading grade point average. Too frequently both the student and the instructor treat both the in-course grade and the final course grade as money in the bank to be drawn upon to make up deficits resulting from low performance on subsequent examinations or other assignments or courses.

I think it small wonder our students, and to a lesser extent our faculty and administrators, have adopted the "Grade Point Average Perspective" described by Becker, Geer, and Hughes in their study of the University of Kansas, a perspective which led them to recommend the total abolition of grading.[1] While I believe that the evidence supporting such a recommendation is far from conclusive, I confess to considerable uneasiness when I note that our campus computers rival those in our metropolitan banks and that they perform a very similar function in keeping track of the grades deposited by students, printing out on command the accumulated balances. I wonder how long it will be before someone suggests that the only remaining difference between the two, the payment of interest, ought to be erased. Seriously, however, I believe we should welcome the opportunity provided by the *Ad Hoc* Committee and panels such as this one to probe the implications for education of our present grading practices.

Turning back to the work of the Committee, I believe that you can be confident that its members are fully cognizant of the necessity for retaining rigorous and continuous procedures for evaluating students. Its members know, for example, that grading was originally resorted to in an effort to make judgments of student performance on the basis of merit, not status; that in doing so we were attempting to advance the democratic principle of equality of opportunity and limit the influence of family connections, cronyism, religion, and race in the management of educational enterprise. They are also aware of the importance of grading in the unending effort to identify and encourage talent as well as to reinforce learning by rewarding exceptional performance. They know very well the importance of grading in the allocation of scarce resources and educational opportunities among those who will make optimal use of them. They are also cognizant of the diagnostic utility of grades in assisting the individual student in making judgments about his interests, performance, capabilities, and his educational goals. They are equally aware of the importance of grades to the teacher who uses them to diagnose his own effectiveness in the classroom or laboratory and to the institution as it attempts to make decisions about curricula, the levels at which certain materials should be taught, for how long, and in what sequence. Finally, the members of the Committee are persuaded, as I am sure you are, of the importance of grading in the assistance it provides society beyond the schools in the selection and utilization of the wide range of interests and talents possessed by our graduates.

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[1] Howard S. Becker, Blanche Geer, and Everett Hughes, *Making the Grade: The Academic Side of College Life* (John Wiley and Sons, 1968).

While I believe it would be inappropriate for me, pending the completion of the Committee's report, to communicate its recommendations in any detail, I do believe that you ought to be alerted to the fact that the report will be coming to you in the near future and that it will contain a series of recommendations for us to drastically reduce the amount of letter grading we presently do and to vigorously experiment with alternative methods of evaluating students, including pass-fail, credit-no credit, variable weighting, super-grades, and selected grade point averages.

I believe the report will have my full support. I hope that it will be able to earn yours.

Winston W. Benson

GRADUATE GRADING SYSTEMS

The use of "less traditional" grading systems at the graduate level is increasing at a rapid rate, with over half of the responding membership of the Council of Graduate Schools utilizing some such system. This is probably the single most important generalization to be drawn from a recent survey on graduate grading systems. Pressure for a pass-no credit system in my own graduate school, the limited amount of information available about the subject at the graduate level, and a request to make a short presentation at this meeting led me to make a survey of the grading systems used by members of the Council of Graduate Schools. At this point, I wish to extend my sympathy and appreciation to you for your cooperation in filling out one more questionnaire.

Terminology

Before presenting any of the detailed results, I want to tell you of my struggle with terminology—the search for a way to describe types of grading systems. I didn't want the terminology to discredit past practice and laud new approaches, nor the opposite. Finally, I decided to use the term "traditional" to describe the A,B,C,D,F grading system and the term "less traditional" to describe systems other than the A-F system, such as satisfactory-unsatisfactory and pass-fail. I believe this terminology largely accomplished the purposes in mind.

Response to the questionnaire

Response to the questionnaire was excellent. Of 287 members surveyed, 240 responded . . . 239 in apparently good humor. My questionnaire, as is frequently the case with this technique, suffered from certain limitations. Some questions proved to be ambiguous, and there was considerable overlapping among them. Also, an inherent limitation exists when a single instrument is used to assess a subject in a wide variety of institutions. Finally, as most of us know only too well, busy respondents don't always complete questionnaires with total diligence. However, these limitations do not destroy the basic utility of the survey in depicting the general nature of grading systems now used in graduate schools.

Of the 240 respondents, 127 indicated they used systems other than the A-F system either in part or in whole. This replacement or supplementary system is a satisfactory-unsatisfactory system in sixty-five institutions, a pass-fail system in thirty-nine institutions, a pass-no credit system in eight institutions, and some other variation from the A-F system in twenty-seven additional institutions. It should be pointed out that several colleges or universities use more than one "less traditional" system.

Extent of Use

A considerable number of well-established graduate schools have used "less traditional" grading systems such as satisfactory-unsatisfactory or pass-fail for many years; however, there has been a dramatic increase in their use during the last five years. Only thirty institutions indicated they have used a "less traditional" system ten years or more, as contrasted with sixty-six institutions that have used such a system five years or less. These figures indicate a dramatic acceleration in the adoption of "less traditional" systems.

Respondents asked to evaluate their "less traditional" system repeatedly stated that it had not been used long enough for an assessment of its advantages and disadvantages.

Several respondents said they had no "less traditional" system now but were planning one. Typically they indicated their intention of instituting a pass-fail system on a limited basis in a year or so.

The responses make it clearly apparent that the use of "less traditional" grading systems is currently undergoing massive field testing.

Discretion in Use of the System

Another item in the questionnaire asked who exercised the discretion in deciding whether the "less traditional" grading system was to operate in the grading of a particular course. Here there was a great difference reported in the survey. Practice not only varied from institution to institution but according to the kinds of courses within many of the institutions. The largest single number of colleges or universities left its use to departmental option, but almost as many followed a mandatory institution-wide policy. There was also a considerable number of institutions that left the choice with the individual student or faculty member. Thus, practice varies markedly as to whether the use of "less traditional" grading is a uniform institutional policy, departmental option, student option, or faculty option. On a related question, there was high uniformity, however. Virtually all institutions require a student to commit himself to a given type of grading system when he registers and *not* at some later date.

Courses Open to "Less Traditional" Grading

Another question concerned the kinds of courses in which the "less traditional" grading system is employed. Practice varies all the way from requirement of its use in all courses to permission to use it in thesis or dissertation only. As one might suspect, the "less traditional" system is used more in grading the thesis or dissertation than in any other situation, with eighty-five institutions indicating they use it for this purpose. Next greatest use is for individual research other than thesis, with sixty-six universities using it for this purpose, while sixty-five use it for seminars. A somewhat smaller number, forty-three, use it for electives, while only twenty-four permit it in standard lecture courses in the major field.

Limitation and Level of Use

The study also shows that most institutions place no specific limitation on the proportion of a graduate program that may be taken under the "less traditional" system. Inherent limitations in the nature of courses open to this type of grading usually serve as an effective limit. In the vast majority of cases, the system applies equally at all levels of graduate work, although in a few cases only advanced students are eligible.

Rationale for Use

Respondents were asked to choose from five possibilities their basic reasons for utilizing this grading system. The three most often chosen are as follows: seventy-one do so "to avoid pretenses at evaluation where such evaluation is arbitrary"; twenty-seven do so "to encourage students to take work in outside areas of interest"; twenty do so "to avoid having students studying for grades and to encourage them to study for knowledge."

Advantages and Disadvantages of its Use to the Graduate School

In an open-ended question, a great variety of reasons were given in evaluating the results of their "less traditional" grading system in terms of advantages to the graduate school. In order of importance they are listed as follows:

1. It is more realistic because it is impossible to grade fairly under the traditional system.
2. The student cannot raise his grade point average with research or thesis.
3. The system makes it more practical for a student to take work outside of his major field.
4. The pressure on faculty is reduced.

A number of disadvantages to the graduate school were also listed. In rank order they are:

1. Registrar and administrative confusion that results when a second system of grading is introduced.
2. The grade point average does not reflect the total work of the student.
3. Courses get "sloppy" and instructors evaluate poorly.

Advantages and Disadvantages of its Use to the Students

A minority of the respondents reacted to the question of advantages or disadvantages to the students, but some interesting ideas were advanced. Two advantages to the students that were most often listed were as follows, with the first one indicated far more frequently than the second: (1) There is less pressure on the students. (2) It doesn't confuse research grades with the academic grade point average.

Three of the disadvantages of the "less traditional" system that were listed are as follows: (1) The student may be penalized in competing for stipends. (2) The student cannot be recognized for outstanding work. (3) The student cannot improve his grade point average with thesis or research.

Summary

To briefly summarize, "less traditional" grading systems are used in whole or in part by more than half of the responding institutions. Numbers using such systems have sharply increased during the past five years. Grades such as satisfactory-unsatisfactory or pass-fail are used most frequently in the thesis but are also extensively used in evaluating other research, seminars, electives, and informal courses. Leading advantages cited for utilizing these systems include the feeling that this type of grading system is more realistic and there is less pressure on the students when A-F grades are not given. Disadvantages include the administrative confusion brought on by a multiple grading system and the fact that a "less traditional" system may penalize a student competing for stipends. Interestingly enough, not a single respondent indicated that he felt it would result in less diligent student application or less learning!

No effort was made to determine if the overriding rationale for the accelerating use of "less traditional" grading systems bears any relationship to the student unrest on our college campuses. However, in supporting their system, respondents placed heavy emphasis on the need to avoid pretenses at evaluation where such evaluation is arbitrary! Certainly the disturbed student on our campuses today is demanding that we avoid sham and pretense in all things that we do—including the grades we assign.

This survey has revealed some interesting things to me. It will make me better able to administer the pass-no credit supplementary grading system scheduled for my graduate school. I hope it has given you some additional insight on the use and rationale for "less traditional" grading systems at the graduate level. I recommend that the Council of Graduate Schools continue its examination of graduate grading systems at future meetings and through its committee structure.

Leonard J. Kent

TRADITIONAL GRADUATE GRADING AND THE GOLD-STAR SYNDROME

In light of my scheduled appearance before you tonight after only some three months in office, two ideas haunted me: my predecessor at Chico who volunteered my services before he ever met me was either remarkably farseeing or alarmingly vindictive; I should plead gross ignorance and inexperience, and, having captivated you with my humility and sincerity, immediately plunge into a discussion of Wordsworth or, at the very least, review an old paper I have written on the underrated flexibility of the semicolon. After looking at the general topic for discussion, two additional thoughts occurred to me more or less spontaneously: the students have finally got us on the run; no one can beat the "gold-star syndrome."

Although I offer no solid evidence, it seems not unreasonable to maintain that in large measure the impetus for modifying or doing away with the A through F grading system has come essentially from students who are at once much less reticent than they were to pressure for action and more persistent in their demands that we supply rationale for our traditional approaches to education. It is admirable that despite a marked conservative bent many schools now seem to be moving towards partially or fully superseding traditional grading practices; but, if indeed, as many suspect, our increasing willingness to experiment has more to do with our reacting to pressure than it has to do with the implementation of teacher-created and nurtured ideas, the prognosis for success may be far less than good. I do not suggest that we should not react to justified heat; rather, that if we are reacting only to the heat generated at this moment in time, we may skimp on our total commitment to any newer kinds of evaluative processes that may emerge, and may attend the premature wake of ideas concerning evaluation that may be inherently well worth keeping alive.

My own school has been in existence for almost one hundred years. It is just beginning to seriously confront this thing called grading practices. Is it that the traditional system is essentially so satisfactory that it has required no serious previous scrutiny? What has changed that now requires such concentrated and accelerated attention—the world, schools, teachers, students? I would like to think that we here may have had some part in this; but whether this is so or not, I suggest that we approach the admittedly complex question of grading with a degree of serenity and open-mindedness so that we neither perpetuate what reason rejects because doing nothing is easiest, nor, in our haste and reaction, substitute approaches to evaluation that, born in external heat, remain dependent upon external heat.

In speaking to colleagues about grading, I find that I am at times simultaneously impressed by the arguments on both sides of the A through F fence. One colleague is convincing when he speaks of the efficiency, the "synthesizing quality," of the letter grade, and its ability to function as a tool for evaluation, communication, and motivation. Another colleague is equally convincing when he argues that such grading, especially on the graduate level, is often demeaning and demoralizing and, at its worst, encourages some teachers to "cop out" and some students to become sycophants. Having thus admitted my own frequent ambivalence, I should yet take a stand.

I think there is something not efficacious in repeating on the graduate level a system of grading that seems to have major shortcomings on lower levels of operation. When I speak of the gold-star syndrome, I make reference to the traditional grading approaches perpetuating and reinforcing the unfortunate tendency of our society to latch on to and to cling to a quantitative rather than qualitative system of measurement so that what becomes crucial is neither what you do nor the joy you discover in what you do, but, rather, how much you make or how many hours you work. Translated into the college situation, the question becomes neither what you have learned nor the joy you may have found in learning, but, rather, what are your grades?

The concentration on grades rather than work seems to ignore or slight the fact that study can be fun, that study should be pleasurable, that what graduate school may be about in part is learning as an end. This being so, learning is perhaps too round to be evaluated by being filed in square-lettered drawers. The gold star, the A, should not be the ultimate aim even in kindergarten, where the child early comes to feel that one gold star is better than none, that fifty are better than one, and who, encouraged by parents who fall into the trap by rewarding the gold star rather than that which went into earning it, ultimately gets to the store and by purchasing a whole box of gold stars achieves a version of heaven on earth.

Students also confuse grades with emotional attachment—the teacher who gives an A likes the student; the teacher who gives an F does not like him. The student, perhaps especially on the graduate level, looking for his gold star, somehow convinced that he needs to get the teacher to like him in order to get one, expends some of the energy that could be devoted to study and searching trying to "psych out" the teacher. Having learned to play the game, he continues to amass the gold stars, while never coming to understand that graduate education should not perhaps offer courses called "Psyching Out 304" or "Pursuing Quantitative Ends 362."

In short, I feel, with many others, that traditional grading practices have a genuine potential for corrupting what education may be about. These practices may tend to reward the manipulator, they may tend to discourage creative impulses, they may tend to break into independent pieces what should be a whole, and they may tend to reinforce the gold-star syndrome, which sees the reward as something extrinsic to the work. The student who is so upset by the letter grade on a paper that he cannot read the comments of the teacher and profit from them may be a case in point.

Perhaps the pass-withdraw system in all graduate work may be salutary; and because there may need to be a way to distinguish between one "pass" and another, the teacher should supply comment relative to the creativity, persistence, resourcefulness, analytical ability and general subject mastery of each student. These comments, together with examples of a student's work and a statement from the student concerning his total college experience, might be submitted to the graduate dean, who, with this material in hand, may be able to render a qualitative judgment ever so much more accurate and valuable than that possible when relying almost exclusively on the transcript that so often comes across his desk in which one student seems just about the same as most other students and in which there is no way to determine what individual qualities the students may possess or how fired up he may be.

One argument against this approach—and a disturbingly valid one at that—is that it will unnecessarily burden the teacher and that, being burdened, his comments will soon be drawn from a cliché file after he has had a chance to create a series of A through F recommendations. I think the burden of writing honest evaluations should be assumed to be part of the responsibility of teaching, and I think that the graduate dean receiving and reviewing cliché evaluations may impress upon the irresponsible or harrassed faculty member involved the need to try it again; or, having failed in this, may discount a particular evaluation in favor of those which seem to really tell us what makes Sammy run.

It will also be argued—again with some validity—that there will be confusion, that the introduction of any new approach to evaluation, especially one which cannot be computerized, will result in registrars becoming distraught, and so on; indeed, that the introduction of a new partially or fully implemented system of evaluation will generally throw our ordered houses into disorder. Surely there will be difficulties in adjusting that none of us looks forward to, but perhaps one of the advantages of such a readjustment may be to remind us that one major aspect of the administrative role (whether it be registrar or graduate dean) is to support the academic thrusts of the institution and that there is no excuse for not supporting such a thrust on the basis of housekeeping problems. The thrusts must lead, never become subservient to considerations of order and efficiency. Philosophy rather than procedure must rule the day; and if, in doing away with the gold-star syndrome, confusion visits our houses, I think we must be prepared to accept this price.

In human and professional terms, I find disturbing the rather arbitrary decisions I sometimes have to make based upon the magic number called required grade-point average. The "scientific" 2.75, for example, for all its alleged efficiency and neutrality, for all its ability to remove responsibility from our shoulders, seems to a guy with a liberal-arts orientation to do little to encourage the student or the system to take into consideration this thing called faith, those subjective and intangible aspects of judgment, which, in the last analysis, not only may encourage a student to reach out and do his own thing, but may be most accurate of all. Intuition is an admirable tool for which we need not apologize to our computers. (If they had it, we'd be working for them.)

It is good that we examine grading practices. It will be better still if we examine them creatively and, by so doing, redefine in part what it is we are all about. It will be best if we continue to supply our own heat to refining and revising whatever evaluation practices most of us ultimately adopt. I believe with Tolstoy that the search for the answers bespeaks quality of soul and that the constant attempt to find answers to complex problems may ultimately be more beneficial and truly important than the answers themselves.

Toni Iadarola

GRADING THE GRADUATE STUDENT: A STUDENT PERSPECTIVE

One need only give a cursory examination to the *Educational Index* for the past few years and note the evidence of a growing dissatisfaction with many facets of grading. Educational periodicals are inundated with such articles as "Down with Grades," "To Mark or Not to Mark," "In Defense of Grades," "Will My Johnny Make the Grade?" The revolutionary changes that are occurring on college campuses today may well have rendered the traditional marking systems obsolete and ineffective, at best. At worst, they may even be a deterrent to learning and an obstacle to the achievement of basic educational values.

During the past five years, as Dean Winston Benson has written, there has been an increase in the adoption of "less traditional" grading systems on the graduate level. Many earnest and sincere administrators, eager to find solutions to the so-called "grade-grubbing" problem, are now experimenting with single forms of non-ranked evaluations such as pass-fail, credit-no credit, faculty progress reports, and student dossiers. In spite of all this experimentation, and it is still too early to effectively evaluate results, the conclusion reached by John Dobbin and Ann Smith in 1960 still applies today:

> . . . although research has uncovered some limitations and suggested some promising direction in marking procedure, no commonly accepted system has emerged from half a century of inquiry. Perhaps the development of such a system awaits agreement on the goals of instruction and the purpose of marking.[1]

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[1] John E. Dobbin and Ann Z. Smith, "Marks and Marking Systems," *Encyclopedia of Educational Research*, edited by Chester H. Harris (3rd ed., New York: Macmillan Company, 1960), p. 789.

What precisely are the goals of instruction on the graduate level? How do these goals of instruction affect grading on this level? What validity do traditional and even less traditional grades have when applied to graduate students engaged in research, professional students in the health sciences and in the clinical phases of their training, or student teachers in classroom situations? In attempting to answer these questions, I would like to single out three areas of vital concern to the graduate student, areas that affect him either directly or indirectly in his endeavor to attain an advanced degree.

The first concern has to do with grading and graduate admissions. Those who advocate the status quo in grading point at the important use made of grades in graduate school admissions and in transfers. But there is significant evidence to show that the whole matter of graduate admissions is badly handled—one need only point to the attrition rates between graduate school admissions and Ph.D's granted. As in so many areas of this whole problem of grading, more research is needed; but the U.S. Government estimates that the attrition rate is as high as 20 to 1.[2] If these figures are accurate, whatever system graduate schools are using for admissions is not highly effective.

Do undergraduate college grades predict graduate grades? And if they do, how much? Evidence again here is scanty. But, as D. P. Hoyt has indicated, while one may find some correlation between high-school grades A to F, and college grades A to F, it is impossible to do the same at the graduate level.[3] In other words, though many graduate officers say that college grades predict success in graduate school and so should serve as an admission criterion, there is virtually no evidence for the assumption. It is just possible, particularly in light of the staggering attrition rates, that the wrong people are admitted in graduate school. As A. E. Juola has stated:

> Success at more advanced levels may be dependent upon a totally different pattern of abilities and proficiencies from that operative at a lower level. A recent study of factors related to success in a graduate school of psychology, for example, established that the undergraduate grade point average in science courses was more significant than undergraduate psychology grades.[4]

The problem of graduate admissions then, may be very badly resolved by grades. It might be better to give graduate admissions officers more resources to carry on extensive admissions investigations—the extra money in the long run would benefit the student, the teacher, the administration, and society.

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[2] Patricia S. Wright, *Enrollment for Advanced Degrees*, OE-54019-63, Circular No. 786 (Washington: Office of Education, U.S. Department of Health, Education, and Welfare, 1965).

[3] D. P. Hoyt, "The Relationship Between College Grades and Adult Achievement: A Review of the Literature," *Research Reports*, American College Testing Program, 1965, 7, i.

[4] A. E. Juola, "Selection, Classification, and Placement of Students." In P. L. Dressel and Associates, *Evaluation in Higher Education*, (Boston, Houghton Mifflin, 1961).

The next area of concern is grading and the relationship that should exist between the student and his major professor. When the graduate student selects a major professor, he expects that professor to guide him for the duration of his graduate program at that institution. A professor I know schedules a weekly meeting with each of his graduate students. At that appointed time, the students' research, his academic progress, his existing problems, and even the latest on Vice President Agnew, are among the many topics discussed. This professor does not limit his time when it comes to consultation with his students. Nor does he limit his association with his students to school hours, but furthers their intellectual development on his own time, in the evenings and on weekends. I believe this is an exceptional case, where the professor unselfishly gives his time for the betterment of his students. This situation is by no mean universal. One need only check office hours of professors per week. An average of an hour and a half is hardly enough time to handle grad students, never mind the fact that most professors teach undergraduate courses and must accommodate undergraduates as well at this time.

However, one must not be blind to the obstacles and pressures confronting professors who would very much like to engage in this type of learning process. Some institutions permit their professors to handle far too many graduate students at one time. Committee involvement devours a sizable portion of a professor's time. If students are plagued with "grade-grubbing" problems, professors have "publishing-grubbing" problems. Professors up for contract renewal or tenure are concerned, and understandably so, with getting that book published or squeezing an article out of that Ph.D. dissertation. Ironically enough, the professor is usually given less hours in the classroom as a reward for such publications—fewer students get the benefit of his scholarly research.

Grading is not only an academic problem. It is a human one as well, and at times this is very often forgotten. There is no doubt that if there were a tighter bond between the major professor and his graduate student, the solution to assessment would greatly be enhanced.

The third and final area of concern involves the relationship between grading and the nature of the discipline that is to be graded. In short, grading critics charge that the present grading practice is not based on a rationale that suits the form of grading to its intended function. They are not "hung up" on such questions as, Shall there be a pass-fail system? Shall the usual ABCDF system be retained? Shall there be no grades but instead a series of written evaluations? Instead of instituting one type of non-ranked evaluation, these critics contend that institutions should adopt a mixed grading system that takes into account the nature of knowledge in the various areas of the college curriculum, the means of appraisal available to instructors in these areas, and the differing purposes to be served by appraising and reporting student progress.

This approach certainly seems sensible and feasible. It does more squarely face the problem of grading in terms of the goals of instruction and the purpose of marking. If we look at a standard college curriculum, we can group disciplines in categories in terms of precision of knowledge. If placed in a paradigm, the subjects may be grouped into three categories:

Category 1	*Category 2*	*Category 3*
mathematics	the professions	the humanities
the physical sciences	the performing arts	some social sciences
some social sciences		

Although not precise, this classification is a viable one. It is true that the state of knowledge in certain areas makes classification of some subjects difficult—for example, sociology and linguistics. The placement of such subjects in the paradigm will depend upon the particular institution's approach to them, thus allowing for flexibility.

In regard to Category 1, we can with a considerable degree of certitude speak about the structure of knowledge, the approaches to learning and discovery, and the systematic nature of mathematics and most of the physical and some of the social sciences. Without denying the creative aspects of these subjects, one can state that either a student understands or doesn't understand the concepts, learns the proper approaches or does not, masters certain agreed-on content or does not. By their nature these fields of study are better ordered, more sequential—one must pass elementary algebra in order to learn intermediate. If mastery is not achieved at the first level, the student cannot succeed at the next. The pass-fail approach seems warranted in the subjects of this category.

In Category 2, the performing arts and the professions, knowledge and practicing skill are interwoven. The college prepares the student through a combination of content and application so that he may test his adequacy in a performing environment—whether it be the classroom, the hospital, law office, or stage. A value judgment of the student's potential for success is made, after which a degree or a certification of permission to pursue the profession or art is awarded. Again, it would appear that either pass-fail or a certificate of accomplishment is needed as a grading mechanism.

In Category 3, the humanities and some of the social sciences, knowledge is less precisely structured and more conjectural. In such fields as philosophy, literature, sociology, and history, finer distinctions are necessary. Performance is judged by a student's ability to make subtle discriminations, refined distinctions, comparisons, analyses, syntheses, and one's ability to organize and write. Where qualitative rather than quantitative distinctions are necessary, the A-F grading seems most relevant. However, as Dean David Sparks has indicated regarding the forthcoming recommendations of the *Ad Hoc* Committee on Grades and Evaluation, the amount of letter grading can drastically be reduced.

Wherever institutions consider differential grading practices throughout their departments, and it appears that this will be the future trend, most certainly a rationale, perhaps on the order suggested, should be considered.

In the beginning of this talk I raised some questions about particular evaluational problems. I have endeavored to examine these questions from a graduate student point of view, looking at the relationships and interrelationships between such concerns as grading and graduate admissions, grading and the relationship between the graduate student and his major professor, and finally, grading and the nature of the discipline. I have not always given answers to the questions raised. The reason for this is that the questions and the arguments both pro and con involve opinions on such controversial matters as freedom, educational goals, motivation, procedures of measurement, and end-means relations. And, these questions will never be answered until institutional leaders sit down with members from all segments of their campus community and hammer out broad but definite goals to be pursued by their particular institution. This must be accompanied, too, by a more detailed definition of goals in the various graduate departments. This is a painful task. But again, in the words of Dobbin and Smith, not until there is wider agreement on the goals of instruction and the purpose of marking, and I would add, within each institution, will we begin to find solutions.

Business Meeting

Saturday, December 6, 9:00 a.m.

Presiding: Alvin H. Proctor, *Chairman, Council of Graduate Schools*

Proctor: Ladies and gentlemen: It is a pleasure to get to use this gavel at least one more time.

We are here for the business session of this Ninth Annual Meeting; and following our past precedents and traditions, we will first have a report of our distinguished president, Gustave Arlt.

PRESIDENT'S REPORT

Arlt: Mr. Chairman, Madam Chairman-Elect, and Mr. Past Chairman, ladies and gentlemen: This is the ninth annual report of your president, recounting the year's activities, the achievements and the disappointments it has brought with it, and assessing, if that is possible in these troubled times, the prospects for the future of our institutions, of our corporate body, and for graduate education as a whole.

In former years, I have generally confined myself to remarks about past developments, a rather natural limitation in view of the rapid and satisfying expansion of the Council's activities and of its sphere of influence.

Nine years is not a very long time for the development of an operation that began with an idea and a hope and a prayer, and not very much more. The position which the Council holds today is the product of a beautiful corporate effort. No one man, no single committee, no small group of men have made this Council what it is. It was created and sustained by scores of willing, dedicated men and women who take hard-won time from their daily tasks to attend to the Council's affairs.

If you need proof for this assertion, read over the committee list and read over the proceedings of the annual meetings to see the names of scores who are participating and who have participated in these activities.

I salute all these willing workers and I thank them, and I hope that their example will inspire other scores to pick up the work where their predecessors will leave off.

I shall not attempt to do more than mention a few of the fifteen or more committees that have been active throughout this year. Some of them, the Committee on Policies, Plans, and Resolutions, the Committee on the Preparation of College Teachers. and a few others, will report to you later this morning, and some of them will have some important resolutions to present. Other committees work jointly with related interest groups. The Joint Committee on Accreditation combines with the National Commission on Accrediting and the Federation of Regional Accrediting Commissions for Higher Education in watching over the procedures of the accreditation of graduate work.

The National Liaison Committee on Foreign Students collaborates with the College Entrance Examination Board, the Institute of International Education, the American Association of Collegiate Registrars and Admissions Officers, and the National Association of Foreign Student Administrators. The Graduate Record Examinations Board, the Committee on African Graduate Fellowships, and the Advisory Committee to the Institute of International Education are other examples of useful and fruitful cooperation with related organizations and agencies.

I am glad to report that the Council and its organizational structure are sound and flourishing and that the operations of your national office continue to expand—also continue to get more expensive. Since the first of the year, sixteen new members have been added to it. Four more were added yesterday by the Executive Committee. Four older members have resigned, for valid reasons—one college has discontinued its graduate work entirely; the others have restricted their offerings to a point where they no longer meet the membership criteria.

The consultation service has been more widely used by our members this year than ever before, and its effectiveness has been recognized by a number of State Boards of Regents who now either require or recommend consultation visits before authorizing new graduate programs. In the past year, 82 departments in 45 institutions required the services of 127 consultants. We commend the consultation service to your consideration and to your use when you expand your graduate offerings or when you think about reorganizing the structure of your graduate school.

At the same time, we express our appreciation to the many scores of consultants, mostly from graduate faculties, most of whom of course are not here today, for their constructive efforts in improving the quality of graduate education. It is no exaggeration to say that the improvement of new programs in our developing graduate schools is largely attributable to the creative and skillful work of our consultants.

Just a word regarding the present status and prospects of other efforts seems appropriate. Perhaps the most important development of past months has been the revision of the Selective Service regulations. Since the spring of 1967, the induction of graduate students has been the most disturbing factor in our schools, both for the morale of students and for the planning of our programs.

It is hardly possible as yet to assess the damage that has already been done by this incubus pressing on all of us. But beginning with President Nixon's declaration on May 13, 1969, this pressure has gradually been relieved. First, the reduction of draft calls; next, the granting of a full year's postponement of induction to graduate students; then the reversed order of draft calls; and finally, the amendment of the Act passed by the Congress last month. All these actions have taken the pressure from our students and from our schools.

For those of us who have been working for years toward a revision of the Selective Service Act, these developments came with surprising swiftness. As recently as three months ago, in our September *Newsletter*, I wrote that no Congressional action could be expected this year. It is impossible, of course, to say who or what influenced the government, but I can assure you that the patient, persistent pestering by the Scientific Manpower Commission and by the Council of Graduate Schools had a great deal more to do with it than SDS activism or mass demonstrations.

The alleviating effects of the new legislation and regulations will, of course, not be fully felt in 1970. In this transition from the old to the new system, all males between the ages of nineteen and twenty-six will be in the so-called prime-age group, and this will, of course, include many actual and potential graduate students. But because of the very large size of that available draft pool, the individual vulnerability will be very low. All those who are not inducted in 1970 will thereafter be free. After 1970, the prime-age group will consist only of nineteen-year olds and of college students whose 2-S deferments, undergraduate deferments, expire. Graduate students will no longer be the prime targets. Once their year of vulnerability has passed, either at the age of nineteen or at the expiration of their 2-S deferment, they can safely plan their future.

Short of complete abolition of the draft, we have attained our objectives. Now we can only wryly wonder why it took three years, nine hundred working days, of writing, talking, and arguing, to bring about something that was finally accomplished in three weeks with practically no opposition anywhere. Washington is a remarkable place, or perhaps just a remarkable state of mind.

Now I wish to use my remaining minutes, not to bemoan shrinking federal funds, which I will leave for you to do, nor restrictive legislation, but rather to examine the developments, both commendable and otherwise, in our individual schools and in graduate education as a whole.

In the thirty-odd years in which I have been involved in the graduate enterprise in one way or another, there has never been a period of such frantic and contradictory changes as the present. The most frustrating letters that I get in every day's mail are the ones that ask: "What are the trends in admission standards, language requirements, thesis requirements, letter, number, or pass-fail grading, faculty teaching loads, and so forth?" Of course, there are trends, if you look hard enough; but it depends on where you look and who is looking.

In the matter of further expansion of graduate programs, for example, many institutions, as you well know, are rapidly, in some cases too rapidly, developing new offerings on both master's and doctoral levels. Others are refraining from further development. Some are curtailing existing programs, and a few are phasing out graduate work completely. What, then, is the trend?

A dozen or more universities have established or are in the process of establishing Doctor of Arts programs for the training of college teachers. At least an equal number, or even more, have rejected the Doctor of Arts concept and are experimenting with various enriched master's degrees, including the Master of Philosophy and Laureate in Arts or Laureate in Philosophy. Is there an identifiable trend here?

In the matter of language requirements for the Ph.D., there certainly is a definite trend to leave the option to the academic departments. But, contrary to expectations, this shift of responsibility has in many instances resulted in a tightening rather than a relaxation of requirements. Many departments now require a fairly thorough command of one language rather than the customary smattering of two. Does this represent a trend or simply a passing experiment?

These few examples are charcateristic of the entire spectrum of graduate education today.

We have never been noted for a high degree of uniformity in practices, procedures, policies, or even philosophy. But today, this absence of uniformity is rapidly becoming a kaleidoscopic diversity. Maybe this is good. I am not saying that it is bad. It just is.

One thing, however, is fairly certain. If this trend toward particularism continues and accelerates, we will be headed toward unimaginable chaos. Conflicting requirements or absence of requirements will make transfers of students from one institution to another difficult, if not impossible. We will be saddled with an array, or shall I call it a hodge-podge, of academic degrees that are ill-defined or undefined.

Take only the matter of a D.A. degree. A number of prestigious universities have established or are planning to establish Doctor of Arts programs equivalent in quality, though not in character, to the Ph.D. Others are developing, and at least one state system is in the process of approving programs that characterize the Doctor of Arts as an intermediate degree equated with the Candidate in Philosophy. If somebody doesn't head this off but fast, the Doctor of Arts degree will be dead before is really gets established.

Similar discrepancies appear in the various types of teaching degrees—the Master of Arts in Teaching, the Master of Arts in College Teaching, the Specialist in this or that. Unless a transcript accompanies the diploma, there is little to signify what each of these degrees really represents.

I hardly need to mention the administrative maze that puzzles students and granting agencies alike. Who actually admits students? A dean, an admissions officer, a department chairman, a committee? Who awards stipends, appoints teaching assistants? Who determines degree requirements and certifies to their completion? A departmental committee? A chairman? The dean of a college? Or the graduate dean?

All these functions not only vary widely from university to university but even within the structure of an individual university. I could name, for example, a large, long-established university in which the graduate dean retains authority over and responsibility for one single department. And this department is in process of being phased out. Everything else in that institution is controlled by the dean of a college, the dean of a school, or an interdepartmental group.

All this points toward the growing erosion of central authority in graduate work and the growing autonomy of departments and groups of disciplines. Many universities are becoming collections of loosely allied departments with little if any unifying authority. I need hardly point out that in this time of crisis in higher education, of rapid changes in the needs and demands of society, reunification of our graduate schools is more essential than ever.

We do face an uncertain future, as our discussions of the past two days have shown. But I believe, and firmly believe, that we can help to shape that future by concentrated effort of this Council of Graduate Schools. And one of the most important steps in shaping the future is to re-establish the power of the graduate school and the authority of the dean.

The coming decade will bring tremendous changes, over many of which we will have little control. But we will be able to give direction to many of these changes if we maintain a solid central organization within our schools. And as I look into this uncertain future, I see that it will be a primary function of the Council of Graduate Schools to help its members strengthen and stabilize their internal organizations.

That is fundamental. Failing in this function, the Council will itself fall into erosion and debility. But the Council will not fail in this primary function.

With this confidence, and in this faith, I hand over my responsibilities to all of you and to the competent hands of my successor. Thank you very much.

Standing applause.

Proctor: Thank you, Mr. President. Anything I would say after that ovation and applause would be truly a gilding of the lilies, sir.

The second order of business this morning is that of committee reports. The first committee report will be made by Dean Stephen Spurr, a member of the Committee on the Preparation of College Teachers. He is making the report for the committee in view of the fact that I am chairman. And because of what he will say and propose, I should like to remind members that in the voting that occurs in a business session, each institution is entitled to only one vote. The senior person present representing the graduate school will cast the vote for the institution.

We will at this time, therefore, hear a report from Dean Stephen Spurr of the Committee on Preparation of College Teachers. Dean Spurr.

REPORT OF COMMITTEE ON PREPARATION OF COLLEGE TEACHERS

Spurr: The Committee on the Preparation of College Teachers has been charged with developing a booklet on the subject as a guide to the schools that are interested in developing special programs for this purpose.

This booklet is in advanced stages of drafting, and it will deal with the entire spectrum—with the master's degrees, intermediate graduate degrees, and the doctoral degrees.

It is the intention of this committee to circulate a draft of the complete booklet to all members of CGS within the next few months for criticism and editorial suggestions.

However, in view of the widespread interest in the Doctor of Arts degree, the Committee, under the chairmanship of Dean Proctor, thought it desirable to bring the draft of the statement of standards on the Doctor of Arts degree to you at this time. I have been asked by the Committee to make it clear that the concept of a teaching doctorate is perfectly feasible under the rubric of the Doctor of Philosophy degree. In fact, as we know, many Doctor of Philosophy programs are so construed and so handled.

Alternatively, however, it is clear that a number of departments and a number of institutions have elected to develop a Doctor of Arts as a parallel program to the Ph.D., and our statement is designed to advise and hopefully to influence the standards for those institutions that elect this particular route.

Now, we brought some four hundred copies of our statement, and they have been out front. They have all disappeared, and I am sure there are a number of you who have not been able to find copies. In the meantime, the Executive Committee, at its meeting on Thursday, edited at considerable length the statement. I wonder whether, in view of the importance of this question, you would like me to read the statement as edited by the Executive Committee. Mr. Chairman?

Proctor: Will you please do so.

Spurr: The statement, then, prepared by the Committee on the Preparation of College Teachers and endorsed by the Executive Committee is as follows:

"The largest single market for the doctorate in the liberal arts is in the field of college teaching. The great majority of college professors are and will continue to be primarily concerned with teaching rather than with research.

"The Committee on Preparation of College Teachers of the Council of Graduate Schools in the United States recommends the establishment of graduate programs leading to the degree Doctor of Arts to prepare graduate students for a lifetime of effective teaching at the college level.

"The Doctor of Arts program should be of such rigor that the degree will take its place among other respected doctoral degrees, such as the Doctor of Philosophy, Doctor of Education, Doctor of Business Administration, Doctor of Musical Arts, Doctor of Medicine, Doctor of Dental Surgery, and Juris Doctor.

"The Executive Committee of CGS has previously declared that:

" 'Preparation at the doctoral level for a career in the practice of undergraduate college teaching, ordinarily in one of the fields of the humanities or the social sciences or the natural sciences, may be recognized by the award of the degree Doctor of Arts.'

"The new title is proposed in the belief that the Ph.D. degree has traditionally so emphasized research that it is counterproductive in that the majority of graduate students are trained almost exclusively along lines other than those they will actually follow in their careers as college teachers. They are led into expectation that will not in fact be realized, and, as a result, their level of discontent and dissatisfaction is magnified. Relevance is achieved only if the degree structure is appropriate to the career aims and possibilities of the students.

"For most doctoral students, a program emphasizing broad subject-matter competence and teaching skills and the development of synthesizing and disseminating abilities is appropriate. The title Doctor of Arts carries the connotation of this great emphasis on preparation of college teaching.

"The orientation and preparation inherent in the Doctor of Arts degree have advantages beyond those of the faculty members who will find a greater continuity between their training and their actual careers. Colleges will also be placed under less pressure to create research facilities if research accomplishment is no longer held up as the one single mark of success of their teaching faculty. The present influence of research specialization on the undergraduate curriculum would also be reduced, and many students will welcome a broader orientation in curricular offerings. Much of the undergraduate curriculum today is oriented toward the research interest of the faculty members or toward the 2 percent of the students who will eventually seek the Ph.D. degree. And we should recognize now that the great growth in enrollments, and thus in teaching positions, in the future will be in the community colleges and the comprehensive regional colleges, not in the research universities.

"The committee recognizes that it is neither feasible nor desirable to separate sharply a university professor's teaching and research functions, and that research activity is in many cases an essential element of a professor's teaching ability. But the importance of research as a component of college teaching is considerably less for those not teaching at the Ph.D. level, and this group constitutes the vast majority of teachers in higher education. The necessity for research competence and activities at these other levels varies depending upon the subject being taught, but it seems clear that the nature of research competence required for the vast majority of college teachers can be obtained through the proposed Doctor of Arts program.

"The degree Doctor of Arts identifies a person of at least three years of graduate study designed to prepare students for careers as teachers.

"The program leading to the D.A. degree will parallel other doctoral programs but will be oriented toward developing a teaching competence in a broad subject-matter area. In contrast, the Doctor of Philosophy program is designed to prepare a graduate student for a lifetime of creative activity and research, although this will often be in association with a career in teaching at a university or college. The degree Doctor of Education (Ed.D.) should mark a professionally oriented program at the doctoral level in the field of education.

"The Doctor of Arts program should be offered only by institutions with faculty, facilities, and equipment adequate to provide for the offering of these practice-oriented Doctor of Arts programs, so that they will be comparable in quality to accepted research-oriented Ph.D. programs.

"Admission, retention, and degree standards for a D.A. program should be as rigorous as those prevailing for a Ph.D. program and should be under the control of the faculty of the subject-matter field. Under no circumstances should the D.A. program be utilized as a consolation prize or second-class Ph.D. program. While program requirements will inevitably differ because of differing objectives, the D.A. requirements should be no less demanding.

No institution should develop D.A. programs unless its standards for the employment, promotion, and compensation for faculty holders of the D.A. degree are the same as those for faculty holding the Ph.D. degree.

"To insure adequate preparation of college teachers, the Doctor of Arts program should provide for the following:

"(1) The formal course work in the D.A. program will deal preponderantly with the subject matter to be taught by the prospective teacher. Course selection will typically be broader within a particular discipline than for the Ph.D. and may also bridge several related disciplines. The individual courses in the Doctor of Arts program should be conducted at the same high level as Ph.D. courses and, where the two programs exist side by side, may well be the same courses in many instances. Foreign language and other research tool requirements should be truly functional. A comprehensive examination, typically broader than the usual Ph.D. comprehensive examination, but not less demanding, should be required upon the completion of formal course work.

"(2) Prospective college teachers should take an appropriate amount of formal course work and seminars in such areas as the psychology of learning, the history and sociology of higher education, and the responsibilities of faculty members within an institutional setting.

"(3) The development of teaching competence requires a structured exposure to college teaching at the undergraduate level. The supervised teaching experience may be provided through an internship either at the institution offering the D.A. program or at a cooperating two- or four-year college. The teaching internship should include substantial and direct classroom experience in regular courses, preferably in more than one kind of course. It should, moreover, be supervised, criticized, and evaluated by experienced faculty members and reinforced by relevant course work in teaching methods applicable to the student's particular subject.

"(4) The development of the capacity and habit of reading, understanding, and interpreting the results of new research and pedagogical developments appearing in the literature of the field should be encouraged.

"(5) The development of the ability to apply new significant research and pedagogical developments in the field for the benefit of college teaching.

"(6) The Doctor of Arts program must include the satisfactory completion of a project of individual study demonstrating an acceptable combination of scholarly, analytical, creative, and expository skills. The project may focus upon the teaching of a subject as well as upon a contribution to original knowledge.

"Like the Ph.D. program, the Doctor of Arts program must require at least three years of full-time graduate study. It should normally be completed in not more than four."

This committee includes Dean Cobb, Indiana State University at Terre Haute; Dean Culbert, Ohio University; Dean Koenker, Ball State University; Dean Lester, Emory University; Dean Rice, Claremont Graduate School; myself; and the chairman, Dean Proctor of Kansas State College of Pittsburg.

In submitting this report for the committee and for the Executive Committee, I should like to call to your attention that within this last month the Association of State Colleges and Universities has approved and is in the act of publishing a statement on the Doctor of Arts degree. And although we have not compared the two statements word for word, it is the impression of your committee that the Association of State Colleges and Universities' report is compatible with the one which we put before you. We ask the acceptance of this report.

Proctor: Thank you, Dean Spurr. Perhaps, if there is any discussion, it would be helpful if I remind all members that under our Constitution, in Section 10, there is the statement, "No acts of the Council shall be held to control the policy or line of action of any member institution." Perhaps a reminder about this statement will assuage some pain, if there is any. Dean Spurr has moved the acceptance of the report. Is there a second?

The motion was duly seconded.

Proctor: It has been moved and seconded. Is there any discussion? Dean McCarthy.

McCarthy: I have just a few comments. I think that the report of the committee is one of great importance and we should accept it. There is, in my opinion, a very strong need, an urgent need, for the establishment of the kind of a program this represents and the establishment of this on some agreed-upon national level. I think that there is great danger in not moving decisively in this respect. The report of the committee is excellent; it is comprehensive; its subject is appropriate; and I can't help but comment that at the University of Washington, after about two years of discussion, the graduate faculty adopted as a matter of university policy the conception that Doctor of Arts programs, which are in principle similar to those now proposed by the committee, be established. One program is definitely under way, with several others in the offing. I am very pleased to urge that the committee report be treated favorably and that we pass the motion.

Proctor: Other comments? Dean Crawford.

Crawford, University of Minnesota: I know that Dean Proctor and his colleagues have put their money where their mouth is, as just reported to us. I wonder, Mr. Chairman, if it would be in order to ask for a show of hands from the institutions that have adopted such a Doctor of Arts degree or something so similar to it as to be essentially indistinguishable. I think that there are perhaps half a dozen schools that have taken this step. I would just like to know.

Proctor: May I add, or are in process of doing so.

Crawford: Yes.

Proctor: Dean Crawford has asked who have adopted or are in process of adopting policies for the establishment of this degree. Will you show your hands please?

Show of hands—about a dozen.

I believe there are other people indicating a desire to speak in the rear of the room.

Ferrante, University of Rhode Island: Mr. Chairman, I have a question. I wonder why the committee has emphasized that the degree is designed to prepare students for careers as teachers of undergraduates in both two-year and four-year institutions. Why do you emphasize "undergraduates?" Would it be uncommon to find these same people teaching graduates?

Proctor: I shall ask Dean Spurr to return to the microphone, please.

Spurr: I think that the emphasis and the interest and the concern for the degree derives from the feeling that a program oriented intellectually toward emphasis upon undergraduate teaching is called for.

The statement that the Doctor of Arts recipient should be subject to the same consideration for promotion and for assignment of duties as holders of the Ph.D., I think, clearly implies that we assume that he will teach any course at any level that he is judged by the faculty as competent to teach.

Proctor: Dean Boddy?

Boddy, University of Minnesota: May we take it for granted that in approving or adopting this report we are essentially adopting it in principle, but that it is still subject to change that may come from further consideration?

Proctor: Yes, you may, Dean Boddy.

Proctor: I should like to ask President Arlt to comment on the report.

Arlt: Mr. Chairman, in connection with Dean Ferrante's comments a few moments ago, I would like to say that this was a matter of very considerable discussion in the Executive Committee the day before yesterday. The very pointed question was asked: Should people with Doctor of Arts degrees be utilized in preparing other Doctors of Arts? Obviously, that would be on the graduate level.

I would therefore like to suggest an editorial change on page 3 of the committee report, to read: "Designed to prepare students for teachers of undergraduates, but not excluding graduates." I think that would take care of some of the objections.

Proctor: Thank you, Mr. President. In further comment to Dean Boddy, yes, this will be edited and will be a part of the proposed booklet on preparation of college teachers, and a draft of that proposed booklet will be circulated to the membership before it is presented to the Executive Committee for its approval so that we will have an opportunity to receive wide comments and suggestions on the matter.

I would also, as a point of information, simply remind the membership that in our booklet on the naming of degrees, the statement was made that the Doctor of Arts may be awarded where appropriate for the preparation of college teachers. The Council has taken some cognizance of it before this. Is there further discussion? Dean Wolverton.

Wolverton, Miami University: I am impressed by the fact that not many years ago at these same meetings we heard Dean McCarthy arguing pretty strongly against the adoption of any such degree and impressed by the fact that in these deliberations that have been taking place over the last few months, conversion has taken place. I might even include Bob Koenker in this, because I notice he has been around for a number of years, not exactly hustling, but certainly pushing the Specialist's. So this means something to me when you have people who have converted somewhat.

I wonder if someone could tell us just briefly what the experience has been with the people who received this degree, where they have gone, and what they are now doing.

Proctor: I have witnessed those conversions, and they have sometimes been painful. I would like to recognize Dean Strehler of Carnegie-Mellon.

Strehler, Carnegie-Mellon University: My remarks about our Doctor of Arts program take two hours, and I know some of us have planes to catch. We have awarded five Doctor of Arts degrees—two in mathematics and three in English. We have 100 students in the program now. The first Doctor of Arts recipient was offered a very good teaching position and ended up as an assistant professor at Williams College. The second Doctor of Arts, in mathematics, is on the faculty at Chatham College in Pittsburgh. And the remaining three, in English, we liked so well that we kept.

We expect to give 14 or 16 Doctor of Arts degrees at commencement next spring. Some of them are committed to teach in the Allegheny community colleges. Some have been offered positions at liberal arts college and some of them we will keep.

Proctor: Thank you, Dean Strehler. May I say, as a point of information, that I attended the meeting of the American Association of State Colleges and Universities at Atlanta three weeks ago and their Graduate Committee did have a rather detailed document, which was unanmiously accepted by the Association and its Board of Directors and will be published; and Dean Spurr was quite accurate in saying that the two documents are compatible.

I mention this to you as a point of information to indicate something to which I referred on Wednesday: that other national organizations not directly oriented toward graduate matters, as the Council of Graduate Schools is, have moved into consideration of matters of this sort. It seems to me that the Council should be aware of and should, in principle at least, note what is occurring, and take appropriate action.

McGrath, Kent State University: I am at a university where we have doctoral programs in some departments and only master's programs in others. Did the committee do any talking about whether it is desirable or even permissible for a department to offer only the Doctor of Arts degree, or should it be offered in departments where the Ph.D. degree is already present?

Spurr: This, of course, is a decision to be made, we think, by the institution itself. There has been a great deal of debate and argument on this by people taking both stands.

The Executive Committee rewrote the original committee statement on this. The statement, as it now stands, is that the Doctor of Arts program should be offered only by institutions and departments with faculty and facilities adequate to provide for Doctor of Arts programs comparable to research-oriented Ph.D. programs.

The clear implication of this, for instance, is that a physics department should have adequate laboratory facilities, adequate library, adequate faculty with advanced training and competence, but it need not necessarily have a research cyclotron or bevetron, and the library might have a different composition and a different number of volumes.

In other words, departments would be eligible to offer the Doctor of Arts with adequate library and laboratory and faculty facilities, but these need not be measured against the standards of what is needed to do advanced research in the same sciences.

Proctor: Thank you, Dean Spurr.

Spragg, University of Rochester: Despite the disclaimer by Steve Spurr, I am still a little uneasy at the response to the question raised by the gentleman from Rhode Island, and I should like to urge the committee that if it is truly the intent and purpose of the committee that persons on this level be permitted to teach at the master's level and also future Doctors of Arts, this should be stated positively and not simply by the negative phrase "and not limited to." I believe a paragraph should be added, if such is the belief, indicating that to teach at the masters' level or train other D.A.'s would be an appropriate career objective for such persons.

Proctor: Thank you, Dean Spragg. Dean Baker?

Baker, Northwestern University: I feel quite uneasy about this. I wonder if the body here is prepared to take something that is handed to us this quickly and to pass judgment on it, a judgment that has been indecisive over quite a long period, and to give it what amounts to a vote of confidence and a blessing.

I see nothing in the structure of higher education in this country that prevents any university that wishes to from offering a program leading to any degree it wishes. And this may be a very fine thing. It may be a good answer to political pressure from legislatures, or what not. I don't know. And it is because of the fact that I don't know that I wouldn't really know how to vote on this. I would at least like to take a document of intent back to my committees in the graduate school, not necessarily to the whole graduate faculty, but preferably to it, and work it through the committees, get their comments and ideas, before I give a vote representing Northwestern University. And I have a feeling that there are others who have the same uncertainty.

It might be possible to distribute to us the completed document along with a list of institutions that intend to make an effort along this line and ask us to vote by mail at a later time.

Proctor: Thank you, Dean Baker. I think that your remarks have helped to clarify the situation considerably. I would remind the membership that you are not asked at this time to pass judgment, to use Dean Baker's phrase. We simply presented a report to you, and the motion was simply to accept the report, in the usual parliamentary sense of accepting reports. The acceptance has been moved.

Hurley, Western Reserve University: A newly emerging graduate institution actually has to pass muster with regional accrediting associations, and I am wondering whether the committee has submitted this report to the various regional associations or gotten any judgment from them about the proposed Doctor of Arts degree?

Proctor: We have not submitted it, sir, in that sense to the accrediting agencies, but some of us have had informal conversations with the officers of those organizations. Is there further discussion?

Appley, University of Massachusetts: What are the implications of the creation of a new degree with respect to the placement of Ph.D.'s? We heard over the past year about the sudden difficulty of placement in the sciences. I am asking for the implications of introducing a new degree that would encourage people to go into college teaching. It may raise competition within the academic family for the same positions. What are the manpower implications?

And a second unrelated question: What about service degrees, Doctor of Engineering, Doctor of Applied *X* or *Y*? Is this part of a package, the D.A.?

Proctor: Thank you, Dean Appley. Dean Spurr will respond.

Spurr: We have considered the supply and demand problem as it relates to the Ph.D.'s, and the feeling is that the argument for a Doctor of Arts should not be based upon supply and demand considerations, but whether or not the institution considers that this type of training is better in preparation for the individual who is more teaching oriented than research oriented.

May I make a comment of my own here: How does the D.A. relate to intermediate graduate degrees or certificates?

As far as the relationship of this Doctor of Arts to the intermediate degree, which occurs by a variety of names, is concerned, our institution is exceedingly happy with our Candidate of Philosophy certificate, which we give for the satisfactory completion of all the work up to the dissertation.

We have given out some 1,800 such certificates. The student acceptance and the faculty acceptance has been remarkably good. We do not consider that the D.A. is a substitute for that nor will replace it in any way. I am using this on my campus as a device for saying that if a department such as the English Department, to cite one obvious example, is interested in a separate program for the training of college teachers as opposed to a conventional Ph.D. program in English, they have two choices. One is to broaden the concept of the Ph.D. such as the University of Iowa does, to accept a dissertation in creative writing. This is, as far as our graduate council is concerned, a perfectly satisfactory answer.

The other one is to establish a Doctor of Arts program equal in quality to that of the Ph.D. program, but on a different set of standards. And the effort here is not to replace whatever has been done to recognize the intermediate stage.

Unidentified voice: Question.

PROCTOR: Since this discussion could run far afield and we have other important things to do, the question having been called for, I will put the motion to receive the committee report to a vote. Those in favor say "aye", please. (Chorus of ayes.)

Opposed, "no". The motion carries.

The next order of business is a report from Dean McCarthy concerning the GRADCOST Committee.

REPORT ON COSTS OF GRADUATE EDUCATION

MCCARTHY: At the 1968 Annual Meeting of the CGS in San Francisco, a resolution calling for an appointment of a committee to study and report on the unit cost of graduate education in the United States was moved, seconded, and passed. Shortly thereafter, such a committee, called hereafter the GRADCOST Committee, was appointed by Chairman Proctor. About that time we learned of the deep interest of the National Association of College and University Business Officers, hereafter called NACUBO, in unit costs.

And after some discussion, it was agreed that the study should proceed under the joint sponsorship of CGS-NACUBO.

The GRADCOST Committee has met on four occasions: in Washington, D. C. on May 20th; Lake Arrowhead, California, on July 9th; again here in Washington on two later dates.

Prior to the initial meeting, Dr. John Caffrey of the American Council on Education called together a number of persons, most of whom were associated with government agencies or organizations of academic institutions, to discuss how best to proceed to obtain information concerning unit costs. In general, it was concluded that the CGS-NACUBO study should be encouraged to proceed as expeditiously as possible.

The following day, the CGS Executive Committee authorized the GRADCOST Committee to prepare and transmit to an appropriate government agency or agencies a proposal requesting funds for the desired study and then to carry out the study with such funds as expeditiously as possible.

At the May meeting of the GRADCOST Committee, the nature of the study was agreed upon, and in June a proposal was submitted to the National Science Foundation, the Endowment for the Humanities, and the Office of Education. After a multitude of discussions, and not a few frustrations, July arrived, without approval of the proposal. Apparently for two reasons: one, lack of available funds at the end of the fiscal year, and also, concern in the minds of certain of the government representatives that the CGS-NACUBO proposed activities might duplicate some already under way in the program called Management Information Systems, which had already been funded by the Office of Education and was being conducted by the Western Interstate Commission on Higher Education.

Thus, at the July meeting of the GRADCOST Committee, detailed discussions were held with Dr. Ben Lawrence, the Director of the MIS study, and his associates, and it was agreed that the activities of the GRADCOST Committee initially should be focused on evaluation, collection, and publication of information from the literature and other available sources whereas the MIS study would proceed with a small number of selected colleges and universities to develop and evaluate in practice certain proposed definitions and allocation procedures.

The two activities were described in writing and are now agreed to be complementary and mutually supportive.

Arrangements for continuing close collaboration were made by adding to the GRADCOST Committee roster the names of Dr. Ben Lawrence and Dr. Warren Coe, the Director and Associate Director of the MIS Studies.

Representatives of CGS, NACUBO, and the GRADCOST Committee are to be added to the appropriate MIS committees. At the October meeting of the GRADCOST Committee, a full day's discussion was devoted to a review of the substance and proposed arrangements for the CGS-NACUBO study. It was concluded that these activities should be substantially the following:

The program will collect and publish available information relating to activities of colleges and universities and will analyze this information in order to identify and define as far as possible by discipline level and characteristics or type of institution of graduate program (1) major elements of costs and benefits, (2) the principles used for allocation of these costs and benefits on a unit basis, and (3) will summarize this information and these analyses; (4) will identify and evaluate as far as practicable what appear to be the most important major elements of costs and benefits, the definitions of these benefits, the alternative procedures for allocating these costs and benefits, and illustrative ranges of costs and benefits on a unit basis insofar as it may be practicable to do this; and (5), publish as soon as practicable.

Following the October 8 meeting, a revised proposal was developed, and on November 21 this was formally transmitted to the Science Foundation as a request for funds.

The GRADCOST Committee is hopeful that funds will be available soon to carry forward and complete the proposed study with publication of results. Meanwhile, the committee itself, along with associates at various universities, has proposed within the resources available to make a beginning to collect literature and to summarize the same.

Through the next several months the GRADCOST Committee intends to move forward as rapidly as possible in a program of the above described activities. There is no question but that urgent and widespread need exists for information on unit costs of graduate education, and your committee proposes to continue to collect, analyze, and publish such information at the earliest possible time.

I move this report be received.

(The motion was duly seconded.)

PROCTOR: It has been moved and seconded that the report be received. Is there any discussion? Hearing none, those in favor say "aye". (Chorus of ayes.) Opposed, "no". (None.) The report is received.

We will now hear a brief report from Dean Michael Pelczar, of the University of Maryland, concerning the Committee on Policies, Plans, and Resolutions. Dean Pelczar.

REPORT OF THE COMMITTEE ON POLICIES, PLANS, AND RESOLUTIONS

PELCZAR: Mr. Chairman, the first meeting of the Committee on Policies and Plans, under the chairmanship of Dean Rhodes, was held during last year's annual meeting at San Francisco. Shortly thereafter, the membership will recall, they received a letter from Dean Rhodes outlining the committee's responsibilities and asking several questions. For example: What do you believe to be the most important issues in graduate education today?—problems deserving Council action and matters that warrant development of policy statements by the Council?

Approximately fifty documents were received by Dean Rhodes, and considerable material—in fact, a wealth of material—was contained in this correspondence. Dean Rhodes did an exceptionally fine job, outstanding, as a matter of fact, in tabulating all of the ideas and suggestions that were contained in these writings. And he prepared a list of approximately one hundred and fifty suggestions, which represented the homework for your committee.

The committee has met twice since this San Francisco meeting, has developed several recommendations, which have been submitted to the Executive Committee on two separate occasions, and the Executive Committee has responded to these recommendations by appointing additional committees and referring various topics to existing committees.

The Executive Committee at its July meeting merged the Committee on Resolutions with the Committee on Policies and Plans. So now we are identified as CPPR, Committee on Policies, Plans, and Resolutions.

Also at the July Executive Committee meeting it was decided that one plenary session would be the responsibility of the CPPR Committee, to begin in 1970.

In conclusion, I would like to re-emphasize our recognition and our gratefulness to Dean Rhodes, who set a tremendous style for the performance of this committee, and it is a tough act to follow.

Mr. Chairman, I move the acceptance of this report.

Proctor: It has been moved that the report be received and it has been seconded. Any discussion? Without dissent, then, it is so ordered.

We now are ready, I believe, to turn to new business. The first item of new business concerns a recommendation from the Executive Committee that the annual membership dues for the Council of Graduate Schools in the United States shall be increased to $400.00 per year effective on January 1, 1970. As information to members of the Council, on October 31, 1969, the president transmitted a letter to every member indicating that in Section 11 there is a statement in our Constitution, "Membership dues shall be proposed by the Executive Committee and must be approved by majority vote of the membership after due notice." President Arlt referred to extended and expanded activities of the Council in the year ahead. We are all aware of rising costs. Therefore, the Executive Committee presents to you officially at this time a proposal that membership dues shall be increased to $400.00 per year effective on January 1st, 1970.

This does not require a second. It is now open for discussion. Is there any discussion? Hearing none, I put the question. Those in favor please say "aye". (General response: "Aye".) Those opposed, "no". The motion passes.

The second item of new business is a report from the Committee on Policies, Plans, and Resolutions. Dean Pelczar, do you have resolutions to present?

Pelczar: Yes, Mr. Chairman. Just one resolution.

> *Be it resolved,* That the membership of the Council of Graduate Schools in the United States express its gratitude to President Arlt and members of his staff, as well as to the members of the Executive Committee of the Council of Graduate Schools, for effectively serving the organization and for providing an excellent program and facilities for a most successful Ninth Annual Meeting.

Proctor: You have heard the resolution. Is there a second? (The resolution was duly seconded.)

I would assume, certainly, that there is no discussion. Therefore, all in favor please give a hearty "aye". (The motion was unanimously carried.)

On our order of business, we now have the election of officers. Under Section 5 of the Constitution, the Executive Committee shall, from its own past or present membership, elect a Chairman-Elect for the next year. The Executive Committee has done that, and I am pleased to present to you Dean Stephen Spurr, as Chairman-Elect. Dean Spurr.

(Applause.)

The Constitution also provides the Executive Committee, acting as a nominating committee, shall propose a nominee for each position at large to be filled. We have three such positions.

The Executive Committee presents these nominations. Others, of course, can be made from the floor.

Dean Jacob E. Cobb, who has served on the Executive Committee for one year, is renominated for a three-year term; Dean Philip Rice, of Claremont Graduate School, for a three-year term; and Dean Edwin Eigel, of St. Louis University, for a two-year term. These are the nominations of the Executive Committee. Are there other nominations? Hearing no other nominations, may I have a motion for a unanimous election of these three nominees? (From the floor, in chorus, "I so move.") It is moved and seconded. Those in favor please say "aye". (General response: "Aye".)

Opposed, "no". (No response. The nominees are elected.) Congratulations to the new members of the Executive Committee.

It is my pleasant duty to make one or two very brief remarks before turning the chairmanship of the Council of Graduate Schools over to President Mina Rees, who currently sits at this table as Chairman-Elect.

I would like first of all to extend my personal thanks for a deeply rewarding year to President Gustave O. Arlt. And if I proceeded to say anything further about it, I am sure I would be embarrassed, and perhaps he would be too. Thank you, sir.

May I say to the Executive Committee and the chairmen of various committees, and to all of you, that it has been indeed a special privilege to work with you during the past year. I should like to say to Jim Eshelman and to the staff of our national office that their kindness has been deeply appreciated, and especially their efficiency has been deeply appreciated.

It is now my privilege to turn to President Mina Rees and to hand her the gavel whereby she will become for 1970 the Chairman of the Council for Graduate Schools. President Rees.

(Standing applause.)

Rees: You are very kind indeed. First of all, I want to say I am not taking this gavel home. All the chairmen have been carrying it on airplanes, and I haven't got that much strength. So the office, here, is going to have to hold on to it.

Dr. Proctor is a hard man to follow, and the scores of you who are now involved in committee work will understand what I am talking about. The expeditious handling of this meeting is just one aspect of the splendid job he has done. I am afraid I won't be able to follow his successfully, but I will do the best I can.

There is just one remark I wanted to make. A number of you, during the course of the meeting, have made suggestions and comments about the form of the meeting, the structure of the meeting, the way you would like to see it handled. I would like to invite any of you who have ideas on that subject to write to me so that we can consider the various suggestions that come up and how we should proceed for the Miami meeting. I made a very useful suggestion myself, but I haven't got very far with it; namely, that instead of the dinner we should have a dinner-dance.

(Laughter.)

But I am sure others of you have more useful suggestions.

I need not remind you that this is the last meeting at which Gus Arlt will preside as president, so we have been pressing him to be at Miami.

And if we have that dinner-dance, I hope I will get a dance with you, Gus.

I am asked to make two announcements. And some of you know the meaning of the abbreviation WAGS, the Western Association of Graduate Schools. They will meet in Seattle March 2 and 3. And the Midwest Conference will meet in Chicago April 6 and 7.

As I said, we all recognize that this is Gus Arlt's last meeting as president of the Council, but we are looking forward to having him in Miami.

And now I suggest that in adjourning we do so with a rising vote of affection to Gus.

(Standing applause.)

The meeting stands adjourned.

Joseph L. McCarthy

PLANNING GRADUATE EDUCATION

Dr. McCarthy, Dean of the Graduate School of the University of Washington, made the following remarks as Chairman of the Council of Graduate Schools in the United States at the opening of the Annual Meeting of the Council on Wednesday, December 4, 1968, at the San Francisco Hilton Hotel, San Francisco, California.

Today students come to our graduate schools in ever-increasing numbers, and yet critics continue to point out what they believe to be major inadequacies in our system.

Our most recent critic, Dr. Edward H. Levi, on the occasion of his inauguration as the eighth president of the University of Chicago less than one month ago, said that much of today's graduate education was of little value to many students. Those who want to go into college teaching are offered an experience far too narrow to be of significance for any broad approach to teaching. Preparation for effective scholarship and research is inadequate and leaves the student miseducated for both teaching and research. He asks: Why should there be no other types of institutions created to answer the goals and purposes of many students who seek a different kind of service and action? (Fred M. Hechinger in the *New York Times,* November 17, 1968)

Here in President Levi's statement, it seems to me, is the core of what our critics, and doubtless some of our protesting graduate students as well, have been trying to tell us—that graduate schools must now sharpen and perhaps broaden their objectives; must offer programs which are better defined and more clearly relevant to the interests of our students and our society; and must explain and defend the objectives, nature, and contributions of these programs to a wide array of constituents.

I believe that there are certain responses in planning graduate education which we can and should make to our critics, and in the next approximately twenty minutes some of these will be suggested.

THE PROFESSORS

At the core of graduate education is the professor. It is his scholarship and wisdom, diligence and dignity, and, above all, his example to his students which gives meaning and quality to graduate education.

Professor William Arrowsmith, who you will remember wrote "The Shame of the Graduate Schools," gracefully commented:

> . . . the teacher is both the end and the sanction of the education he gives. This is why it is completely reasonable that a student should expect a classicist to live classically. The man who teaches Shakespeare or Homer runs the supreme risk. This is surely as it should be. Charisma in a teacher is not a mystery or nimbus of personality, but radiant *exemplification* to which the student contributes a correspondingly radiant hunger for becoming. What is classic and past instructs us in our *potential size*, offers the greatest human scale against which to measure ourselves. The teacher, like his text, is thus the mediator between past and present, present and future, and he matters because there is no *human* mediator but him. He is the student's only evidence outside the text that a great humanity exists: upon his *impersonation* both his test and his student's human fate depend. For student and teacher alike, ripeness is all . . .
>
> When students say that their education is irrelevant, they mean above all the absence of this man. Without him the whole enterprise is ashes, sheer phoniness . . .
>
> What he [the student] wants is models of committed integrity, as whole as they can be in a time of fragmented men. Admittedly such models are hard to find, and integrated men are not to be expected. Hence it is essential that a student be confronted with as many different, vivid modes as we can muster; from these he may be able to infer the great, crucial idea of all true education—the single many-sided transformation of himself, the man he wants to be.

Here then is an eloquent restatement of our primary charge—to look, above all, to the *individual teacher* for quality in graduate education.

THE GRADUATE STUDENTS

Among the myriad different groupings of graduate students, two seem to call for special planning, i.e., black students and mature women students.

Black graduate students, as well as other disadvantaged Americans, are enrolled only in very small numbers in our colleges and universities, although many trained teachers and other professionals who might be trained in our graduate schools would be able to render important services, especially to persons with similar cultural backgrounds. Surely we must now make truly heroic plans and actions to identify and recruit and assist promising disadvantaged students to enter and complete graduate studies.

Women graduate students in their thirties and forties now seem to be enrolling in increasing numbers. Some of these women began graduate work in their twenties, then withdrew for family raising and have now come back to complete their graduate degrees. Others are entering graduate school for the first time. In either case, the planning and offering of some special accommodations, such as refresher courses or tutoring or the like, may be necessary or desirable so that these women will be able expeditiously to advance and complete their graduate programs and then proceed to make their professional contributions to society.

THE GRADUATE PROGRAMS

There is an urgent need, I think, greatly to improve the definitions and descriptions of our graduate programs. Graduate schools should arrange their affairs so that every student who enters understands clearly what is the objective and general content and probable duration of his program and what career role he should anticipate. The medical and law students have these understandings. Why not graduate students also?

And I might just as well say now at the onset that I view graduate education as including *two* types of graduate programs, *both* professional: one research-oriented and the other practice-oriented.

Today's programs of advanced study reflect a long history.

Long ago, in the Middle Ages in Europe, the universities were usually organized into four faculties or colleges: Law, Medicine, Theology, and Philosophy. Of these, the first three continue today as great fields of professional practice.

The Practice-Oriented Graduate Programs

During recent years other fields have emerged, and academic preparation for practice in these fields has come to be recognized by the award of advanced degrees such as the Doctor of Dental Surgery, Doctor of Veterinary Medicine, Doctor of Public Health, and certain others.

More recently, several sharply defined, usually two-year post-baccalaureate practice-oriented graduate programs have emerged in response to the needs of modern times, such as those associated with the degrees of Master of Business Administration (M.B.A.), Master of Social Work (M.S.W.), Master of Fine Arts (M.F.A.), Master of Architecture (M.Arch.), and others. The huge growth in student enrollments in the M.B..A, M.S.W., and similar practice-oriented graduate programs illustrate the attractions of what some of our critics might call relevant programs. Some additional professional doctoral programs are now being offered at certain institutions, e.g., those leading to the degrees of Doctor of Business Administration, Doctor of Musical Arts, Doctor of Public Health, and others.

I believe that there is urgent need for establishment of many additional practice-oriented master's and some additional doctor's degree programs to provide professionals to serve the rapidly diversifying needs of our growing population.

In all, the National Commission on Accrediting recognizes some twenty-two post-baccalaureate fields; and each of these, as well as others, when recognized by this Commission, should be encouraged and assisted to develop.

Finally, it seems to me that much more needs to be done with respect to certain existing graduate programs. The Master of Education and Doctor of Education, and the Master of Engineering and the Doctor of Engineering degree programs should be defined much more explicitly so that they are clearly efficient preparation for professional practice and are clearly different in objective and nature from the M.A., M.S., and Ph.D. programs.

The Preparation of College Teachers

One particular newly emerging field of professional practice for which additional personnel and improved preparation are needed is that of teaching in the undergraduate and community colleges. It is a pleasure to note that the Council's Committee on the Preparation of College Teachers is studying these matters.

To me it seems clear that the research-oriented M.A., M.S., or Ph.D. graduate programs often are not the best preparation for college teaching, and in any case, the opportunity to conduct research usually will be modest in the undergraduate or community college environment.

Instead, graduate programs are being suggested that contain elements such as the following: (1) emphasis on study and understanding of a broad field of knowledge rather than concentration upon a narrow part of the field, e.g., *History* rather than *History of the United States in the Civil War Years;* (2) emphasis on development of the capacity and habit of reading and understanding and interpreting the new research results appearing in the scholarly literature of the field rather than on personal research contribution and publication of this new knowledge; (3) some understanding of the history and organization of education in the United States and overseas and of the psychology of learning and teaching; (4) a modest individual investigation or correlation of subject matter in the major field in writing; and (5) an internship of college teaching under the supervision of an experienced senior teacher in the subject matter field.

Today in the United States only a few institutions seem to offer graduate programs of this type; and I believe many more are needed, especially in the several fields of the art, humanities, sciences, and letters.

Most of these programs probably would require two years of graduate study in a particular subject-matter field and lead to a degree such as Master of College Teaching or, better, to a new type of Master of Arts in Teaching (M.A.T.) degree, with emphasis on college teaching. For some students, further graduate study to a doctoral degree will probably be appropriate, and to me it seems preferable that this degree be called Doctor of Arts in Teaching, in view of the acceptance which has already been given to the M.A.T. degree.

For those institutions undertaking to develop such programs, the Education Professions Development Act, which was recently approved by the Congress, should provide significant assistance.

The Research-Oriented Graduate Programs

Now let us return briefly to the universities of the Middle Ages and particularly to the field of philosophy, which I left dangling several paragraphs above.

In the 1680's, there emerged Sir Isaac Newton's "Rules of Reasoning in Natural Philosophy." Who among us can forget Rule IV, stating the "scientific method," which is the basis of most research today:

> In experimental philosophy we are to look upon propositions collected by general induction from phenomena as accurate or very nearly true, notwithstanding any contrary hypotheses that may be imagined, till such time as other phenomen occur, by which they may either be made more accurate, or liable to exceptions.

Philosophy, which first cleaved into natural philosophy and moral philosophy, now has engendered a multitude of disciplines, including mathematics, physics, chemistry, biology, philosophy, history, literature, sociology, psychology, and many others.

Thus the Doctor of Philosophy degree seems appropriate recognition for achievement in advanced study in each of the considerable number of disciplines which emerged from philosophy.

Today the Doctor of Philosophy degree still continues firmly to hold the meaning assigned to it in 1904 by the Association of American Universities.

> . . . the Doctor of Philosophy shall be the highest degree . . . and . . . shall be open as a research degree in all fields of learning, pure and applied.

This statement was affirmed in 1965 both by our Council and also by the Association of Graduate Schools in the Association of American Universities.

In name, then, the Doctor of Philosophy degree is indubitably to be identified with research-oriented graduate programs—those designed to prepare a student for a career in research.

Whether our Ph.D. programs now actually succeed in achieving such great expectations, however, has been questioned; and it appears that a considerable number of our Ph.D. graduate do not continue research activity after completing their graduate school years

Thus it seems to me that we should reflect seriously upon the effectiveness of many existing Ph.D. programs in preparing students for careers in research. In some cases, shortcomings in their experiences may be identified, and program improvement can be encouraged. In other cases, perhaps it will be appropriate to improve admission procedures so that encouragement to proceed in the Ph.D. program is given only to those applicants who appear to have a real interest in and a flair for research. Alternative practice-oriented programs may be suggested for those desiring advanced study but not evidencing clear promise for research.

By better defining the Ph.D. programs in this way, the result may be an actual decrease in the rate of Ph.D. awards, but the gain should be substantial in the quality and productiveness of those earning this degree.

However, after the transition period, another result may well become evident: a substantial increase in the numbers and quality and satisfaction in those who earn practice-oriented master's and doctor's degrees in related fields.

The Master of Arts and the Master of Sciences Degrees

The M.A. and the M.S. degrees, as well as the Ph.D. degree, were also confirmed in 1965 by our Council as appropriate for recognition of completion of one- and two-year graduate programs which are research-oriented in the sense discussed above.

The M.A. and M.S. degrees signify a major level of achievement beyond the bachelor's degree, and it is important that these basic programs be steadily maintained and strengthened in our graduate schools.

Intermediate-Level Graduate Awards

As you doubtless know, two similar or identical awards are now being given to recognize completion of all doctoral degree requirements except the dissertation. Yale University, and perhaps other institutions, are awarding the Master of Philosophy degree. Ten universities last year awarded at least 3,000 Candidate of Philosophy degrees or certificates. They were Michigan, California at Berkeley, California at Los Angeles, Hawaii, Indiana, Minnesota, Northwestern, Virginia, Wisconsin, and Washington. Perhaps there were others. Indeed, at my own University of Washington, awards were given identifying also the Candidate in Business Administration, Candidate in Education, and Candidate in Musical Arts *vis a vis* the corresponding doctoral degrees.

It seems to me that we should welcome and encourage the widespread adoption among our graduate schools of an intermediate-level award as a further useful step in defining the nature and scope of our graduate-degree programs. Indeed it may work out that many young men and women receiving the intermediate award will give good service as college teachers while proceeding with completion of their dissertations.

Looking more generally toward the future, we cannot escape the population problem. As we walk down Sutter Street here in San Francisco, can we realize that the world population today is three times what it was in the days of the California Gold Rush; that world population has doubled during the fifty years since World War I; and that during the *next ten years* the expected population increase of one billion persons will approximately equal the total growth in world population from the very beginning of time up to the year of 1900?

Ladies and gentlemen, our graduate schools in large measure must produce the leaders who will have to face and solve the grave domestic and overseas problems which will certainly arise from the rapidly increasing population density and its many ramifications.

Thus rapid evolution of our graduate schools appears to be called for.

We should offer to able young men and women wider choices and much more specific descriptions of the graduate programs available to them. Especially, we need to make clear the basic difference between the research-oriented programs and the practice-oriented programs, although both may well be offered by the same faculty in the same department. I believe that we should bring into being new types of practice-oriented graduate programs to train new types of specialists needed to cope with new problems—many at the master's level and several at the doctor's level.

For sensible planning of graduate education, we certainly need to compile and maintain an up-to-date complete national roster of the individual graduate programs offered at each of our institutions, including the degree productivity of the individual programs. I think that our Council could do this better and cheaper than either the federal government or a business organization. Such a roster will be of increasing use to all of us, and I hope the Council will undertake to compile it.

Such steps as these should bring about substantial improvement of graduate education in the United States. The alumni, taxpayers, donors, legislators, and Congressmen should gain an improved understanding of the workings and contributions of the graduate schools and their planning and progress toward graduate education for the future.

We trust that the gentlemen of the Congress will understand more clearly the national significance as well as the financial problems of graduate education and will soon pass legislation such as that proposed in the bill introduced by Representative George P. Miller of this state of California. Legislation of this type will be of major assistance to all of our institutions.

Finally, our plans and actions will give to the individual young man or woman entering one of our graduate schools an improved opportunity for appraising alternative possibilities and for making an intelligent choice and a sound plan for his own career.

Thank you for listening patiently to these comments, which are offered only as suggestions of one decanal colleague concerning the planning of graduate education for the future.

What in fact happens, of course, will be decided by many persons indeed. However, the very existence of the forum of this Council of Graduate Schools in the United States, with its now two hundred and eighty members across the nation, is a promising sign for the future. Here now assembled at this Eighth Annual Meeting of the Council are representatives of nearly all of the graduate schools of the United States.

Welcome again, and let us now proceed with our discussions and our planning for the future.

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
FOR THE YEAR ENDED DECEMBER 31, 1969

(Prepared by Wayne Kendrick & Company, Certified Public Accountants)

CASH BALANCE JANUARY 1, 1969—Per Prior Audit Report				$154,662.05
Add:				
CASH RECEIPTS				
Dues				
1968		$ 650.00		
1969		65,100.00	$ 65,750.00	
Interest Income			9,676.22	
Sales of Publications			3,117.35	
Administration Service Fees			2,675.00	
Annual Meeting				
Dinner Proceeds		$ 2,370.00		
Registration Fees		1,885.00	4,255.00	
Grants				
The Danforth Foundation		$ 20,000.00		
National Endowment for the Humanities		28,850.00	48,850.00	
Reimbursement of Prior Year's Consultations and Expenses			10,944.14	
Reimbursement of Expenses				
Summer Workshops for New Graduate Deans		$ 5,078.62		
Other		1,787.44	6,866.06	
Miscellaneous			9.18	152,142.95
TOTAL CASH ACCOUNTABILITY				$306,805.00
Deduct:				
CASH DISBURSEMENTS				
Salaries	$49,593.86			
Salaries Applicable to Grants				
The Danforth Foundation	10,858.86			
National Endowment for the Humanities	1,686.25	$ 62,138.97		
Less:				
Employees' Payroll Tax Deductions Unremitted at December 31, 1969		2,078.29	$ 60,060.68	

Remittance of Employees' Payroll Tax Deductions Unremitted at December 31, 1968		1,875.15
Employee's Retirement Premiums		1,570.00
Employees' Hospitalization Insurance		437.00
Christmas Gifts		160.00
Summer Workshops for New Graduate Deans		
Balance of Grant to University of California at Los Angeles for 1969 Workshop		2,500.00
Rent		4,693.57
Printing of Publications		4,616.53
Accounting		300.00
Postage and Mailing		1,290.42
Multilithing, Mimeographing, and Xeroxing		910.08
Stationery and Supplies		1,435.04
Maintenance of Office Equipment		76.32
Subscriptions and Publications		$ 51.30
Telephone and Telegraph		1,944.05
Moving Expense		480.00
Improvements to New Office		248.17
Travel and Meetings		
Staff	$ 3,026.39	
Executive Committee	4,715.78	
Committee on Computerized Matching of Graduate Applications and Awards	690.38	
Committee on Preparation of College Teachers	1,323.53	
Joint Committee on Accreditation of Graduate Work	845.86	
Committee on Policies, Plans, and Resolutions	2,040.88	
Committee on Disadvantaged Students	69.52	
Committee on Costs of Graduate Education	2,113.28	
Ad Hoc Joint Committee on Evaluation of Graduate Students	476.81	
Summer Workshops	1,499.37	
Other Meetings	495.79	17,297.59
Annual Meeting		
Printing	$ 4,595.73	
Honoraria	337.98	
Other	5,995.70	10,929.41
Expenditures Under Grant from National Endowment for the Humanities for a Continuing Study of Graduate Education in the Humanities (In Addition to Salaries)		
Assistant Project Directors	$ 3,460.00	
Participants—Expenses and Honoraria	15,312.58	
Tape Recording, Multilithing, Etc.	1,373.09	
Meetings	2,317.86	
Miscellaneous	246.80	22,710.33
Payroll Taxes		1,457.93
District of Columbia Personal Property Tax		80.18

Insurance and Bonding (Including $198.00 to be Refunded)		781.00	
Dues			
American Council on Education	$ 375.00		
Cosmos Club	320.00	695.00	
Contribution—District of Columbia Tuberculosis and Respiratory Disease Association		10.00	
Consultations and Expenses		6,844.41	
Bank Charges		13.19	
TOTAL CASH DISBURSEMENTS			$143,467.35
CASH BALANCE DECEMBER 31, 1969			$163,337.65
ACCOUNTED FOR AS FOLLOWS:			
Cash in Bank			
The Riggs National Bank of Washington, D. C.			
Checking Account	$ 56,488.20		
Savings Account	2,314.21		
Time Deposits	100,000.00	$158,802.41	
Undeposited Receipts		4,485.24	
Petty Cash		50.00	$163,337.65

OFFICERS AND COMMITTEES

(For the year following the December 1969 meeting)

A. Standing Committees

Executive Committee

Mina Rees (Chairman)
The City University of New York
Alvin H. Proctor (Past Chairman)
Kansas State College of Pittsburg
Stephen H. Spurr (Chairman-Elect)
University of Michigan
Gustave O. Arlt
President, CGS, *ex officio*
Jacob E. Cobb (1972)
Indiana State University
David R. Deener (1971)
Tulane University
Edwin G. Eigel (1971)
Saint Louis University
Carroll L. Miller (1970)
Howard University
Philip M. Rice (1972)
Claremont University Center
George P. Springer (1970)
University of New Mexico

Membership Committee

C. B. Hunt, Chairman (1971)
George Peabody College
Robert M. Bock (1972)
University of Wisconsin
Raymond O. Rockwood (1973)
Colgate University

Committee on Policies, Plans, and Resolutions

Michael J. Pelczar, Chairman (1973)
University of Maryland
Michael J. Brennan (1972)
Brown University
William J. Burke (1971)
Arizona State University
Elizabeth R. Foster (1972)
Bryn Mawr College
Robert F. Kruh (1973)
Kansas State University
George P. Springer (1973)
University of New Mexico
Robert B. Toulouse (1972)
North Texas State University
Cratis Williams (1971)
Appalachian State University

Committee on University-Federal Relations

D. C. Spriestersbach, Chairman (1973)
University of Iowa
Stephen Horn (1971)
American University
Charles G. Mayo (1972)
University of Southern California
Quentin L. Quade (1972)
Marquette University
Hilton A. Smith (1973)
University of Tennessee System
Robert E. Wolverton (1971)
Miami University

Joint Committee on Accreditation and Evaluation of Graduate Work (CGS Members)

Bryce Crawford, Chairman (1972)
University of Minnesota

Gustave O. Arlt
  Council of Graduate Schools
J. Boyd Page
  Iowa State University

Committee on Post-Baccalaureate and Other Non-Degree Programs

W. P. Albrecht, Chairman (1972)
  University of Kansas
Robert H. Bruce (1971)
  University of Wyoming
John N. Hobstetter (1973)
  University of Pennsylvania
Robert T. Lagemann (1971)
  Vanderbilt University
George G. Mallinson (1972)
  Western Michigan University

Graduate Record Examinations Board (CGS Members)

Gustave O. Arlt (1970)
  Council of Graduate Schools
Wayne C. Hall (1971)
  National Academy of Sciences
Michael J. Pelczar (1974)
  University of Maryland
Mina Rees (1972)
  The City University of New York)
Allen F. Strehler (1973)
  Carnegie-Mellon University

Committee on Graduate Assistants

Milton F. Muelder, Chairman (1972)
  Michigan State University
Daniel Alpert (1973)
  University of Illinois
Carl D. Riggs (1971)
  University of Oklahoma
Irwin W. Sizer (1972)
  Massachusetts Institute of Technology
Sam C. Webb (1973)
  Georgia Institute of Technology

AFGRAD Executive Deans Committee

Gustave O. Arlt, Chairman
  Council of Graduate Schools
Richard Armitage
  Ohio State University
Robert H. Baker
  Northwestern University
Carroll L. Miller
  Howard University
Herbert D. Rhodes
  University of Arizona
Lorene L. Rogers
  University of Texas
S. D. Shirley Spragg
  University of Rochester
Robert D. Stout
  Lehigh University

Advisory Committee to the Institute of International Education

Gustave O. Arlt, Chairman
  Council of Graduate Schools
Francis Boddy (1973)
  University of Minnesota
Allen G. Marr (1973)
  University of California, Davis
Alistair McCrone (1972)
  New York University
S. D. Shirley Spragg (1971)
  University of Rochester
George P. Springer (1971)
  University of New Mexico

Committee on Evaluation and Grading

David S. Sparks, Chairman (1972)
  University of Maryland
Gustave O. Arlt
  Council of Graduate Schools
Wesley J. Dale (1971)
  University of Missouri at Kansas City
Andrew J. Hein (1973)
  University of Minnesota

Committee on Preparation of College Teachers

Alvin H. Proctor, Chairman (1973)
  Kansas State College of Pittsburg
Eugene Arden (1973)
  Long Island University
Jacob E. Cobb (1973)
  Indiana State University

Taylor Culbert (1972)
Ohio University
Robert H. Koenker (1971)
Ball State University
Charles T. Lester (1972)
Emory University
John Perry Miller (1971)
Yale University
Philip M. Rice (1972)
Claremont University Center
Stephen H. Spurr (1971)
University of Michigan

Committee on Financial Aid for Graduate Students

S. D. Shirley Spragg, Chairman (1972)
University of Rochester
Sam Aronoff (1972)
Boston College
Robert H. Baker (1971)
Northwestern University
Francis Boddy (1972)
University of Minnesota
Max Goodrich (1973)
Louisiana State University

Committee on Disadvantaged Students

Edwin S. Lively, Chairman (1973)
University of Akron
Ralph Lewis (1973)
University of Michigan
Merrell E. Thompson (1971)
New Mexico State University

Committee on Research

Dale C. Ray, Chairman (1973)
Georgia Institute of Technology
John A. Dillon (1972)
University of Louisville
John W. McGrath (1973)
Kent State University

Committee on Graduate School Public Relations

C. Lawson Crowe, Chairman (1972)
University of Colorado
Richard K. Barksdale (1971)
Atlanta University
George H. Huganir (1973)
Temple University

Committe on Graduate School Governance and Administration

John K. Major, Chairman (1972)
University of Cincinnati
Frederick N. Andrews (1973)
Purdue University
J. N. Gerber (1971)
Stephen F. Austin State University

Committee on Graduate Student Relations

Harrison Shull, Chairman (1972)
Indiana University
Philip E. Kubzansky (1971)
Boston University
Otis H. Shao (1973)
University of the Pacific

B. Ad Hoc Committees

Committee on Computerized Matching of Graduate Applications and Awards

Charles T. Lester, Chairman
Emory University
Gustave O. Arlt
Council of Graduate Schools
Robert H. Baker
Northwestern University
Francis M. Boddy
University of Minnesota
G. H. Evans
The Johns Hopkins University
Russell C. Mills
University of Kansas Medical Center
Herbert D. Rhodes
University of Arizona

Committee on Costs of Graduate Education

David R. Deener, Chairman
Tulane University
Gustave O. Arlt
Council of Graduate Schools
Wayne C. Hall
National Academy of Sciences

Franklin P. Kilpatrick
  University of Delaware
Joseph L. McCarthy
  University of Washington
J. Boyd Page
  Iowa State University
Alvin H. Proctor
  Kansas State College of Pittsburg
Mina Rees
  The City University of New York
Stephen H. Spurr, Vice Chairman
  University of Michigan
Allan Tucker
  State University System of Florida
Robert H. Wessell
  University of Cincinnati

THE CONSTITUTION OF THE COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

1. *Name*

This organization shall be called the Council of Graduate Schools in the United States.

2. *Purpose*

The Council is established to provide graduate schools in the United States with a comprehensive and widely representative body through which to counsel and act together.

Its purpose is the improvement and advancement of graduate education. The purview of the Council includes all matters germane to this purpose. The Council shall act to examine needs, ascertain best practices and procedures, and render assistance as indicated; it may initiate research for the furthering of the purpose. It shall provide a forum for the consideration of problems and their solutions, and in meetings, conferences, and publications shall define needs and seek means of satisfying them in the best interests of graduate education throughout the country. In this function the Council may act in accordance with the needs of the times and particular situations to disseminate to the public, to institutions, to foundations, to the federal, state, and local governments, and other groups whose interest or support is deemed of concern, information relating to the needs of graduate education and the best manner of satisfying them.

In the analysis of graduate education, in the indication of desirable revision and further development, in the representation of needs and all other functions related to effecting its purpose, the Council not only shall be free to act as an initiating body, but it shall assume direct obligation for so doing.

3. *Membership*

Institutions applying for membership shall be considered in the light of the following criteria:

a. Applicants for membership must be accredited by the appropriate regional accrediting agency as a college or university approved for the offering of graduate work.
b. Applicants must have conferred at least thirty degrees of Master of Arts or Master of Science or ten Doctor of Philosophy degrees, or appropriate combination, within the three-year period preceding application.
c. The degrees conferred must be adequately distributed over at least three distinct disciplines, such as but not limited to:

agriculture
anthropology
astronomy
bacteriology
biochemistry
botany
chemical engineering
chemistry
civil engineering
classics
economics
electrical engineering

English
entomology
fine arts
French
geography
geology
German
history
mathematics
mechanical engineering
music
pharmacology
philosophy
physics
physiology
political science
psychology
Russian
sociology
Spanish
zoology

The Committee on Membership shall consider all applications in the light of these criteria and make appropriate recommendations to the Executive Committee. The Executive Committee shall take final action on all applications for membership and shall report such action at each Annual Meeting.

The Executive Committee may invite and approve applications by foreign institutions of good standing for affiliation with the Council if such institutions meet all criteria for membership except accreditation by an American regional accrediting agency. Such affiliates will be extended all the courtesies of membership except the privilege of voting.

4. *Voting Power*

In all activities of the Council, each member institution shall have one vote.

More than one representative of any institution may attend the meetings of the Council, but the member's vote shall be cast by the individual designated as the principal representative of the member by the chief administrative officer of the member institution.

5. *Officers and Executive Committee*

The officers of the Council and the Executive Committee shall be a Chairman, a Chairman-Elect, and the immediate Past Chairman, each serving for a term of one year. In the absence of the Chairman, the Chairman-Elect shall be the presiding officer of the Executive Committee and the Council.

There shall be an Executive Committee of nine voting members, composed of the Chairman, the Chairman-Elect, the Past Chairman, and six members-at-large. Two members-at-large shall be elected by the Council at each Annual Meeting for terms of three years each, beginning immediately after the Annual Meeting.

The Chairman-Elect, chosen by the Executive Committee from its own past or present membership, shall serve in that capacity for one year. The following year, he will assume the office of Chairman, and the following year, the office of Past Chairman.

The Executive Committee, acting as a nominating committee, shall propose a nominee for each position at large to be filled. Other nominees may be proposed from the floor. The nominee receiving the largest number of votes for an unfilled position shall be declared elected.

Each voting member of the Executive Committee must be the principal representative of a member of the Council, and none may serve for two consecutive full terms.

If the Chairman is unable to continue in office, the Chairman-Elect shall succeed immediately to the chairmanship, and the Executive Committee shall choose a new Chairman-Elect.

Any vacancies occurring among the membership-at-large of the Executive Committee shall be filled by the Executive Committee until the next Annual Meeting, at which time the Council shall elect a replacement for the balance of the term.

6. *Executive Officers*

The chief executive officer of the Council shall be a President, who shall be a salaried officer, appointed by the Executive Committee and serving at its pleasure. The President shall serve as an *ex-officio* member of the Executive Committee without a vote.

7. *Duties and Powers of the Executive Committee*

In addition to the duties and powers vested in the Executive Committee elsewhere in this Constitution, the Executive Committee may, specifically: employ such staff and establish such offices as may seem necessary; incorporate; undertake itself, or through its agents, to raise funds for the Council and to accept and expend monies for the Council; take initiative and act for the Council in all matters including matters of policy and public statement except where limited by this Constitution or by actions of the Council.

8. *Committees*

In addition to the Executive Committee, there shall be a Committee on Membership, whose members shall not be members of the Executive Committee. This committee shall be appointed by the Chairman with the advice and consent of the Executive Committee.

Other standing committees may be established by the Executive Committee.

Both standing and *ad hoc* committees shall be appointed by the Chairman with the advice and consent of the Executive Committee.

9. *Meetings*

The Council shall hold an Annual Meeting at a time and place determined by the Executive Committee. The Council may meet at other times on call of the Executive Committee.

The Executive Committee shall be responsible for the agenda for meetings of the Council. Reports and proposals to be submitted for action by the Council shall be filed with the Executive Committee before they may be submitted for general discussion by the Council. No legitimate report or proposal may be blocked from presentation to the Council, but action on any proposal may not be taken until the Executive Committee has had an opportunity to make a recommendation.

In matters not provided for in this Constitution, parliamentary procedure shall be governed by *Robert's Rules of Order, Revised.*

10. *Limitation of Powers*

No act of the Council shall be held to control the policy or line of action of any member institution.

11. *Dues*

Membership dues shall be proposed by the Executive Committee and must be approved by the majority of the membership after due notice.

12. *Amendments*

Amendments to this Constitution may be proposed by the Executive Committee or by written petition of one-third of the members. However they originate, proposals for amendment shall be received by the Executive Committee and forwarded with recommendations to the members, in writing, at least ninety days before the meeting at which they are to be voted upon. To be adopted, proposed amendments must receive the approval of a two-thirds majority of the members voting at the announced meeting.

13. *Bylaws*

Bylaws may be established by the Executive Committee at any regular or special meeting, subject to ratification by a simple majority vote of the Council at the next Annual Meeting.

BYLAWS

1. In conformity with Article 6 of the Constitution, the President of the Council of Graduate Schools in the United States shall be paid an annual salary to be determined by the Executive Committee plus such perquisites as may be necessary for the proper conduct of the office and such travel as may be deemed essential. The President is authorized to employ such additional personnel as is, in his judgment, necessary for the proper conduct of the office, to establish bank accounts in the name of the Council of Graduate Schools in the United States, and to draw checks and invest monies against the Council's account or accounts, subject to an annual audit of the books of the Council by a Certified Public Accountant and approval by the Executive Committee.
2. The Riggs National Bank of Washington, D.C., is hereby designated a depositary for the funds of this association and the said bank is hereby authorized and directed to pay checks and other orders for the payment of money drawn in the name of this association when signed by the President and the said bank shall not be required, in any case, to make inquiry respecting the applications of any instrument executed in virtue of this resolution, or of the proceeds therefrom, nor be under any obligation to see to the application of such instrument or proceeds.
3. In the event of the dissolution of the Council of Graduate Schools, all then existing assets of the Council shall be distributed in equal parts to the institutions which will at that time be members of the Council.
4. After January 1, 1969, the fiscal year of the Council of Graduate Schools in the United States will correspond to the calendar year. (Prior to this date, the fiscal year ran from April 1 through March 31.)
5. In the event of the death or disability of the President of the Council, the Chairman shall immediately call a meeting of the Executive Committee to select an Acting President, who shall assume the responsibilities of the President, as they are specified in Article 6 of the Constitution and in Bylaws 1 and 2, until the appointment of a new President.

PROCEDURAL POLICIES

1. Annual meetings of the Council shall be held during or near the first week of December.
2. If a member resigns, it must re-apply for admission in the normal way if it wishes to resume membership.
3. Membership or affiliation, with or without vote, of non-academic institutions, associations, or foundations is undesirable.
4. Institutions accepted to membership prior to September 1 in any given year are required to pay dues for that fisical year.
5. The Annual Meeting of the Council shall be held in Washington, D.C. in each odd-numbered year.

THE COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

MEMBER INSTITUTIONS

Abilene Christian College
Adelphi University
Air Force Institute of Technology
Alfred University
•American University
Andrews University
Appalachian State University
Arizona State University
Atlanta University
Auburn University
Ball State University
Baylor University
•Boston College
Boston University
Bowling Green State University
Bradley University
•Brandeis University
Brigham Young University
Brooklyn College of the City University of New York
•Brown University
•Bryn Mawr College
Bucknell University
•California Institute of Technology
California State College at Fullerton
California State College at Hayward
California State College at Long Beach
California State College at Los Angeles
Canisius College
•Carnegie-Mellon University
•Case Western Reserve University
•Catholic University of America
Central Michigan University
Central Missouri State College
Chicago State College
Chico State College
The City College of the City University of New York
The City University of New York
•Claremont University Center
•Clark University
Clarkson College of Technology
Clemson University
Colgate University
College of the Holy Names
College of Saint Rose
College of William and Mary
Colorado School of Mines
Colorado State College
Colorado State University
•Columbia University
Connecticut College
•Cornell University
Creighton University
Dartmouth College
De Paul University
Drake University
Drexel Institute of Technology
•Duke University
Duquesne University
East Carolina University
East Tennessee State University
East Texas State University
•Emory University
Fisk University
Florida Atlantic University
•Florida State University
•Fordham University
Fort Hays Kansas State College
Fresno State College
George Peabody College
•George Washington University
•Georgetown University
Georgia Institute of Technology
Georgia State University
Gonzaga University

*Harvard University
Hofstra University
Howard University
Hunter College of the City University of New York
Idaho State University
*Illinois Institute of Technology
Illinois State University
Immaculate Heart College
Indiana State University
*Indiana University
Indiana University of Pennsylvania
*Iowa State University
Jefferson Medical College of Philadelphia
John Carroll University
*Johns Hopkins University
Kansas State College of Pittsburg
Kansas State Teachers College
*Kansas State University
Kent State University
Lamar State College of Technology
*Lehigh University
Loma Linda University
Long Island University
Louisiana Polytechnic Institute
*Louisiana State University
Louisiana State University in New Orleans
Lowell Technological Institute
*Loyola University
Loyola University of Los Angeles
Mankato State College
Marquette University
*Massachusetts Institute of Technology
Medical College of Georgia
Medical College of Virginia
Memphis State University
Miami University
*Michigan State University
Michigan Technological University
Middle Tennessee State University
Mississippi College
Mississippi State University
Montana State University
Montclair State College
Murray State University
Naval Postgraduate School
New Mexico Institute of Mining and Technology
New Mexico State University
*New School for Social Research
*New York University
Newark College of Engineering
Niagara University
North Carolina Central University
*North Carolina State University at Raleigh
North Dakota State University
North Texas State University
Northeast Louisiana State College
Northeastern University
Northern Illinois University
Northwestern State College
*Northwestern University
Oakland University
*Ohio State University
Ohio University
*Oklahoma State University
*Oregon State University
Pacific Union College
*Pennsylvania State University
Pepperdine College
*Polytechnic Institute of Brooklyn
Pratt Institute
*Princeton University
*Purdue University
Queens College of the City University of New York
*Rensselaer Polytechnic Institute
*Rice University
*Rockefeller University
Roosevelt University
*Rutgers, The State University
Sacramento State College
*Saint John's University
*Saint Louis University
Saint Mary's University
Sam Houston State College
San Diego State College
San Fernando Valley State College
San Francisco College for Women
San Francisco State College
San Jose State College
Seattle University
Seton Hall University
South Dakota State University
Southern Illinois University
Southern Methodist University
Southwest Texas State College
*Stanford University

- State University of New York at Albany
- State University of New York at Binghamton
- •State University of New York at Buffalo
- State University of New York—Downstate Medical Center
- State University of New York at Stony Brook
- Stephen F. Austin State University
- Stetson University
- Stevens Institute of Technology
- •Syracuse University
- •Temple University
- Tennessee Technological University
- •Texas A&M University
- Texas Christian University
- Texas Southern University
- Texas Tech University
- Texas Woman's University
- Trinity University
- •Tufts University
- •Tulane University
- Tuskegee Institute
- United States International University
- Utah State University
- •Vanderbilt University
- Villanova University
- •Virginia Polytechnic Institute
- Wagner College
- •Washington State University
- •Washington University
- •Wayne State University
- Wesleyan University
- West Texas State University
- •West Virginia University
- Western Illinois University
- Western Michigan University
- Western State College of Colorado
- Western Washington State College
- Wichita State University
- Worcester Polytechnic Institute
- Xavier University
- •Yale University
- Yeshiva University
- University of Akron
- •University of Alabama
- •University of Arizona
- University of Arkansas
- •University of California at Berkeley
- University of California at Davis
- University of California at Irvine
- •University of California at Los Angeles
- University of California at Riverside
- University of California at San Diego
- University of California at Santa Barbara
- •University of Chicago
- •University of Cincinnati
- •University of Colorado
- •University of Connecticut
- University of Dayton
- •University of Delaware
- •University of Denver
- University of Detroit
- •University of Florida
- University of Georgia
- University of Hawaii
- University of Houston
- University of Idaho
- •University of Illinois
- •University of Iowa
- •University of Kansas
- •University of Kentucky
- University of Louisville
- University of Maine
- •University of Maryland
- •University of Massachusetts
- University of Miami
- •University of Michigan
- •University of Minnesota
- University of Mississippi
- •University of Missouri at Columbia
- University of Missouri at Kansas City
- University of Missouri at Rolla
- University of Montana
- •University of Nebraska
- University of Nebraska at Omaha
- University of Nevada
- University of New Hampshire
- •University of New Mexico
- •University of North Carolina at Chapel Hill
- University of North Carolina at Greensboro
- •University of North Dakota
- University of Northern Iowa
- •University of Notre Dame
- •University of Oklahoma
- •University of Oregon
- University of the Pacific
- •University of Pennsylvania

*University of Pittsburgh
University of Rhode Island
University of Richmond
*University of Rochester
University of San Francisco
University of Santa Clara
University of Scranton
University of South Carolina
University of South Dakota
University of South Florida
*University of Southern California
University of Southern Mississippi
University of Tennessee Medical Units
*University of Tennessee System
*University of Texas
University of Toledo
University of Tulsa
*University of Utah
University of Vermont
*University of Virginia
*University of Washington
*University of Wisconsin
University of Wisconsin-Milwaukee
*University of Wyoming

*Founding institutions